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## Data in Brief

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## Data Article

# Assessment of new low input vine systems: Dataset on environmental, soil, biodiversity, growth, yield, disease incidence, juice and wine quality, cost and social data.

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## ABSTRACT

This article describes the environmental, agronomical, economical and social indicators characterization of eleven new low input vine systems to explore their multicriteria performances. These data also describe the reproducibility of all the indicators over six harvest years (2013–2018) over eleven selected winegrower plots. The environmental characterizations are total treatment frequency index, fungicide treatment frequency index, I-Phy indicator from Indigo® method, copper rate, soil compaction, bacterial activity in soil, bacterial molecular biomass, potential nitrogen mineralization rate, amount of available nitrogen in soil at veraison, total specific floristic richness, and relative pollination value. The agronomical characterizations are vine phenology, vine vigour, plot yield, powdery mildew intensity on bunches at

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harvest, grey rot intensity on bunches at harvest, juice sugar rate (total soluble solids) and juice total acidity rate (titrable acidity) at harvest, wine characteristics after microvinification. The economical characterizations are brut semi-margin at the plot and at the farm scale. The sociological characterizations are human capital, penibility, hardouness work and pesticide risk.

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## Specifications Table

Subject	Agronomy and Crop Science
Specific subject area	Soil science, environmental science, botany, plant protection, vine description and vine pathology, pesticide assessment, Alsace wine
Type of data	Table
How data were acquired	Vine parameters: on each sampled grapevine, visual assessment, measurement in the plots Plots practices: vine surveys (grape, soil, bedrock, pesticide spraying, fertilization, harvest practices, soil management practices, green work); the winegrower's practices are surveyed annually; the winegrower's practices are used to calculate the TFIs and the I-Phy indicator Laboratory measurements: juice total acidity, juice sugar Sensory analysis: expert panel test with repetitions
Data format	Spreadsheet: .xls format, raw
Parameters for data collection	Data for the eleven plots within the same vineyard area in France. The plots were chosen to achieve a diversity of wine-growing practices.
Description of data collection	Data were collected between 2013 and 2018 depending the indicator, and depending on the plot. Data were collected at different vine stages: budburst, bloom, bunch closure, veraison, harvest depending the indicator measured. Details for each measurement are in tables.ik
Data source location	Domaine Achillée (Chatenois; 48° 16' 21.065" N 7° 23' 58.178" E), Domaine Vincent Fleith (Ingersheim; 48° 57' 39.668" N 9° 10' 54.2" E), SEAV-INRA (Ribeauvillé; 48° 11' 40.805" N 7° 19' 8.728" E), EPLEFPA (Rouffach; 47° 57' 25.43" N 7° 17' 57.901" E), SEAV-INRA (Wintzenheim; 48° 4' 23.239" N 7° 17' 23.215" E). They are all in Colmar area, Alsace, France. Dataset of each plot is not available because of confidentiality concerns.
Data accessibility	With the article

## Value of the Data

- This dataset is a useful input to go further than the recommendations of the specifications for organic and biodynamic viticulture.
- The data are needed by agronomists and winegrowers to design new low input vine systems.
- The data are essential for evaluating other new low-input vine systems.
- A genuine database on assessment of new low input vine systems about a large and heterogeneous set of indicators.
- Data address eleven contrasted new low input vine systems during all vegetation cycle for six consecutive years (2013-2018).
- This dataset describes for the first time a complete multicriteria assessment of new low input vine systems.

## 1. Data Description

The dataset in this article describes characteristics of eleven vine plots over a period of six years according to several criteria.

**Table 1** describes the characteristics of the plots: the vine variety, the rootstock, the age of the vine, the surface area of the plot, the type of soil and the percentage of slope of the plot, the winter pruning system, any environmental certifications with the mention of the Organic and/or Biodynamic Agriculture and any quality certification with the Appellation d'Origine Contrôlée (AOC) specifications. **Table 2** describes the phenology of the vine of each plot every year. The dates of mid-budburst, mid-flowering, mid-veraison and harvest are given. **Table 3** describes the treatment frequency indexes for each plot, in each year when pesticide sprays were applied on the vine. For plots E, F, J, K planted in 2014, the indices start in 2017. **Table 4** describes the I-phy indicator for each plot, in each year when pesticide sprays were applied on the vine. For plots E, F, J, K planted in 2014, the indices start in 2017. **Table 5** describes the amount of copper applied to each plot each year. **Table 6** describes the compaction rate of the different soil zones of each plot. There are six zones, depending on the position in relation to the vine rows and the depth (Under row in surface 0-20 cm; plowing between rows in surface 0-20 cm; cover crop between rows in surface 0-20 cm; under row in depth 20-60 cm; plowing between rows in depth 20-60 cm; cover crop between rows in depth 20-60 cm). **Table 7** describes the bacteria and nitrogen metrics in the soil of each plot assessed at different phenological stages of the vine. **Table 7** is incomplete for project budget reasons. Indeed, microbiological soil analyses are very expensive and require a lot of work time to take samples. The first decision rule was to take samples at the beginning, middle and end of the project (e.g. 2014, 2015 and 2018). The second decision rule was (not to take samples from the only when several plots had fairly close routes, the analysis was only done on one of the plots in the group of plots (e.g. plot C). The third decision rule is for plots J and K, planted in 2014 with resistant varieties: so we chose to make minimal measurements. **Table 8** describes the relative pollination value and the total specific floristic richness of each plot from 2015 to 2018. **Table 9** describes the winter pruning weight measurements at different locations (placettes) in each plot and year of measurement. **Table 10** describes the detailed measurements of the grape yield at different locations (placettes) in each plot and year of measurement (the weight of a bunch, the number of bunches per vine, the yield per hectare).

**Table 11** describes the powdery mildew and grey rot intensities attacks on bunches at different locations (placettes) in each plot and year of measurement. **Table 12** describes the chemical features of grape juice at harvest in each plot and year (sugar total acidity, pH, malic acid, tartaric acid, and  $^{12}\text{C}$ . $^{13}\text{C}^{-1}$ ).  $^{12}\text{C}$ . $^{13}\text{C}^{-1}$  ratio assesses global vine water uptake conditions between veraison and harvest. **Table 13** describes the descriptors of the sensory evaluation of wines (color intensity; aroma intensity, floral aroma, fruit aroma, mineral aroma, vegetable aroma, aroma quality; sparkling intensity; taste acidity, sugar, bitterness, length and quality; sensorial quality). **Table 14** describes the economical and social features (semi gross margin at system scale, economic result at farm scale, human capital, penibility, pesticides, security).

## 2. Experimental Design, Materials, and Methods

### 2.1. Plot description and characterization

The eleven plots are located in Alsace, a wine region in the northeast of France (48° 19' 5.446" N 7° 26' 29.847" E). Dataset of each plot is not available because of confidentiality concerns.

**Table 1**  
Characteristics of the studied plots.

#code	Plot characteristics							Specification of the plots		Regular practices		Innovative practices of the low-input plots						
	Variety	Root-stock	Vine planted year	Area (hectares)	Number of plants per hectare (vines.ha-1)	Soil	Slope (%)	ENV <sup>1</sup> (first year)	PDO <sup>2</sup>	Winter pruning	Harvest practice	Soil cover <sup>3</sup>	Mulch under rows <sup>4</sup>	DAT <sup>5</sup>	Spray <sup>6</sup>	Oils <sup>7</sup>	Caps <sup>8</sup>	RES <sup>9</sup>
A	Pinot gris	SO4	1981	0.40	3922	Clay loam	10	Integrated (2000)	Alsace	Double Guyot	Manual							X
B	Riesling	161-49	1997	0.37	4464	Stony and silty-clay soil	15	Integrated (2010)	Alsace Grand cru	Double Guyot	Manual							X
C	Pinot gris	SO4	1981	0.40	3922	Clay loam	10	Integrated (2000)	Alsace	Double Guyot	Manual	X						
D	Pinot gris	SO4	1981	0.40	3922	Clay loam	10	Integrated (2000)	Alsace	Double Guyot	Manual	X						
E	Pinot blanc	SO4	2014	0.35	4850	Loamy sandy soil	10	Integrated (2014)	Alsace	Double Guyot	Manual							X
F	Pinot blanc	SO4	2014	0.35	4850	Loamy sandy soil	10	Organic (2014)	Alsace	Double Guyot	Manual		X	X	X			
G	Riesling	161-49	1997	0.37	4464	Stony and silty-clay soil	15	Organic (2010)	Alsace Grand cru	Double Guyot	Manual	X	X	X	X			
H	Riesling	3309	1978	1.6	4167	Granit alluvium	0	Biodynamic (2009)	Alsace	Double Guyot	Manual	X						X
I	Riesling	SO4	2009	0.25	5348	Brown soil	10	Biodynamic (2009)	Alsace	Double Guyot	Manual					X	X	
J	Resistant variety	SO4	2014	0.35	4850	Loamy sandy soil	10	Integrated (2014)	Vin de France	Double Guyot	Manual							X
K	Resistant variety	SO4	2014	0.35	4850	Loamy sandy soil	10	Organic (2014)	Vin de France	Double Guyot	Manual		X	X				X

<sup>1</sup> ENV: Environmental specification

<sup>2</sup> PDO: Protected Designation of Origin specification

<sup>3</sup> Soil cover: Soil management with sowing cover crop on 100% of the plot; Mulch under rows

<sup>4</sup> Soil management with hardwood mulching under vine rows

<sup>5</sup> DAT: Using Decision Aid Tool to manage pest spraying

<sup>6</sup> Spray: Pest spraying using alternative products

<sup>7</sup> Oils: Essential oils and Propolis added to each Copper spraying

<sup>8</sup> Caps: Blowing the floral caps after cluster closure

<sup>9</sup> RES: Planting a resistant variety.

**Table 2**

Phenology of the vine.

#code	Year	Mid-budburst date (julian day)	Mid-flowering date (julian day)	Mid-veraison date (julian day)	Harvest date (julian day)	Harvest date (day)
A	2013	115			276	03/10/2013
A	2014	93	158	215	261	18/09/2014
A	2015	103	156	215	267	24/09/2015
A	2016	100	171	226	247	04/10/2016
A	2017	96	153	209	248	05/09/2017
A	2018	107	147	206	255	12/09/2018
B	2013	116	173	236	291	18/10/2013
B	2014	93	157	221	273	30/09/2014
B	2015	104	154	218	264	21/09/2015
B	2016	105	171	233	307	03/11/2016
B	2017	97	157	219	247	04/10/2017
B	2018	108	152	212	268	25/09/2018
C	2013	115	173	228	276	03/10/2013
C	2014	94	158	215	261	18/09/2014
C	2015	106	158	216	267	24/09/2015
C	2016	100	171	225	247	04/10/2016
C	2017	97	153	209	248	05/09/2017
C	2018	107	147	208	255	12/09/2018
D	2013	114			276	03/10/2013
D	2014	95	158	215	261	18/09/2014
D	2015	105	157	215	267	24/09/2015
D	2016	101	172	223	247	04/10/2016
D	2017	97	154	209	248	05/09/2017
D	2018	107	143	206	255	12/09/2018
E	2017	99	155	216	247	04/09/2017
E	2018	99	149	211	261	18/09/2018
F	2017	100	155	216	247	04/09/2017
F	2018	103	149	212	261	18/09/2018
G	2013	116	172	236	291	18/10/2013
G	2014	93	157	220	273	30/09/2014
G	2015	105	156	219	264	21/09/2015
G	2016	106	172	235	307	03/11/2016
G	2017	98	157	218	247	04/10/2017
G	2018	108	150	213	268	25/09/2018
H	2013		172	242	286	13/10/2013
H	2014	93	158		262	19/09/2014
H	2015	104	155	218	261	18/09/2015
H	2016	101	170	231	283	10/10/2016
H	2017	97	156	220	255	12/09/2017
H	2018	100	146	212	271	28/09/2018
I	2013	115	175	236	275	02/10/2013
I	2014	91	158		255	12/09/2014
I	2015	105	157	219	252	09/09/2015
I	2016	103	174	237	248	05/10/2016
I	2017	96	159	221	264	21/09/2017
I	2018	107	149	216	277	04/10/2018
J	2017	100	156	221	264	21/09/2017
J	2018	106	150	213	261	19/09/2018
K	2017	100	156	224	264	21/09/2017
K	2018	107	151	213	261	19/09/2018

Alsace is under temperate maritime-influenced climate, warm with moderate precipitation [1].

The eleven plots were repeated during six years (2013–2018).

The eleven plots present a range of biophysical and agronomical conditions (Table 1). Some information on the management of these low-impact plots are included in Table 1.

**Table 3**

Treatment frequency indexes for studied plots.

#code	Year	TFI-total	TFI-fungicides	TFI-fungicides-biocontrol	TFI-fungicides-no-biocontrol	TFI-herbicides
A	2013	7,9	7,2	0	7,2	0,75
A	2014	6,8	5,7	0	5,7	1,05
A	2015	9,6	9,1	0,8	8,3	0,5
A	2016	9,8	9,25	0	9,25	0,52
A	2017	8,0075	7,57	0	7,57	0,4375
A	2018	7,34	6,82	0,88	5,94	0,52
B	2013	11,1	10	0	10	1,16
B	2014	9,7	8,6	3,3	5,3	1,08
B	2015	10,1	8,3	2,2	6,1	1,8
B	2016	12,69	10,64	0	10,64	2,05
B	2017	7,921388889	7,608888889	6,453333333	1,155555556	0,3125
B	2018	9,73	9,29	7,09	2,2	0,44
C	2013	5,6	5,6	0	5,6	0
C	2014	3	3	0	3	0
C	2015	6	6	0,4	5,6	0
C	2016	7,8	7,8	0	7,8	0
C	2017	5,27	5,27	0	5,27	0
C	2018	4,3	4,3	0	4,3	0
D	2013	6,7	6,7	0	6,7	0
D	2014	5,4	5,4	0	5,4	0
D	2015	7,3	7,3	0	7,3	0
D	2016	7,9	7,85	0	7,85	0
D	2017	6,34	6,34	0	6,34	0
D	2018	6,82	6,82	0,88	5,94	0
E	2017	7,376822222	6,893488889	5,917933333	0,975555556	0,483333333
E	2018	10,128	10,128	7,92	2,208	0
F	2017	7,318055556	7,318055556	6,573333333	0,744722222	0
F	2018	11,649	11,649	11,365	0,284	0
G	2013	6,5	5,5	1	4,5	0
G	2014	6,7	6,7	4,2	2,5	0
G	2015	7,6	7,6	3,7	3,9	0
G	2016	7,12	7,12	0,8	6,32	0
G	2017	7,318055556	7,318055556	6,573333333	0,744722222	0
G	2018	11,65	11,65	10,74	0,91	0
H	2013	3,72	3,72	2,6	1,12	0
H	2014	2,28	2,28	2,01	0,27	0
H	2015	3,62	3,62	2,79	0,83	0
H	2016	5,602734884	5,602734884	3,796	1,806734884	0
H	2017	4,8	4,8	4,8	0	0
H	2018	3,2	3,2	2,71	0,49	0
I	2013	7,1	6,1	1	5,1	0
I	2014	2,69	2,69	2,4	0,29	0
I	2015	2,1	2,1	1,9	0,2	0
I	2016	4,33	3,58	0,75	2,83	0
I	2017	1,3	1,3	1,16	0,14	0
I	2018	1,18	1,18	1,01	0,17	0
J	2017	1,103333333	0,72	0	0,72	0,383333333
J	2018	2,45	2,45	1,625	0,825	0
K	2017	0	0	0	0	0
K	2018	0	0	0	0	0

## 2.2. Phenology characterization

The number of broken buds and the total number of buds have been counted on 10 randomly picked grapevines on several sub-plots of each of the 11 plots during 2 to 4 visits to plots, depending on the year. The percentage of budburst is thus calculated. The date closest to the 50% of broken buds is considered the mid-budburst date.

**Table 4**  
I-phy indicator for studied plots.

#code	Year	I-Phy
A	2013	9,4
A	2014	7,3
A	2015	9,3
A	2016	9,3
A	2017	9,6
A	2018	9,2
B	2013	9,2
B	2014	9,5
B	2015	9,5
B	2016	9,3
B	2017	9,7
B	2018	9,7
C	2013	9,5
C	2014	9,6
C	2015	9,5
C	2016	9,6
C	2017	9,7
C	2018	9,5
D	2013	9,5
D	2014	9,6
D	2015	9,5
D	2016	9,5
D	2017	9,8
D	2018	9,8
E	2017	9,7
E	2018	9,9
F	2017	9,9
F	2018	10,0
G	2013	9,4
G	2014	9,9
G	2015	9,9
G	2016	9,9
G	2017	10,0
G	2018	9,9
H	2013	8,2
H	2014	9,8
H	2015	10
H	2016	9,8
H	2017	10,0
H	2018	10
I	2013	9,6
I	2014	9,9
I	2015	9,9
I	2016	9,8
I	2017	10,0
I	2018	10
J	2017	9,8
J	2018	9,8
K	2017	10,0
K	2018	10,0

The number of flowering inflorescences and the total number of inflorescences per vine have been counted on 10 randomly picked grapevines on several sub-plots of each of the 11 plots during 2 to 4 visits to plots, depending on the year. The percentage of flowering inflorescences is thus calculated. The date closest to the 50% of flowering inflorescences is considered as the mid-flowering date.

The number of ripped bunches and the total number of bunches per vine have been counted on 10 randomly picked grapevines on several sub-plots of each of the 11 plots during 2 to 4



**Table 5**  
Amount of copper applied to studied plots each year.

#code	Year	Copper rate (kg.ha <sup>-1</sup> .year <sup>-1</sup> )
A	2013	1.33
A	2014	1.24
A	2015	0.38
A	2016	0.70
A	2017	1.28
A	2018	0.51
B	2013	1.00
B	2014	1.93
B	2015	0.87
B	2016	0.98
B	2017	0.72
B	2018	0.57
C	2013	0.81
C	2014	0.33
C	2015	1.5
C	2016	0.7
C	2017	0.9
C	2018	0.23
D	2013	1.31
D	2014	1.20
D	2015	0.65
D	2016	0.56
D	2017	1.15
D	2018	0.43
E	2013	0
E	2014	0
E	2015	0.1
E	2016	0.90
E	2017	0.72
E	2018	0.70
F	2013	0
F	2014	0
F	2015	0.1
F	2016	1.49
F	2017	1.22
F	2018	0.59
G	2013	3.04
G	2014	1.44
G	2015	1.28
G	2016	1.93
G	2017	1.22
G	2018	0.75
H	2013	0.70
H	2014	0.31
H	2015	0.67
H	2016	1.33
H	2017	0.051
H	2018	0.10
I	2013	0.77
I	2014	0.46
I	2015	0.45
I	2016	0.49
I	2017	0.33
I	2018	0.40
J	2013	0
J	2014	0
J	2015	0.1
J	2016	0
J	2017	0
J	2018	0.2

(continued on next page)

**Table 5** (continued)

#code	Year	Copper rate (kg.ha <sup>-1</sup> .year <sup>-1</sup> )
K	2013	0
K	2014	0
K	2015	0
K	2016	0
K	2017	0
K	2018	0

visits to plots, depending on the year. The percentage of ripped bunches is thus calculated. The date closest to the 50% of vine veraison is considered as the mid-veraison date.

*Harvest date* is the exact day of harvest of the plot.

Data are explained in Julian day, counted from 1 to 365, from the first of January to the 31st of December (Table 2). The missing data in Table 2 are due to a lack of weekend outings to do the ratings.

### 2.3. Vine protection characterization

The pressure of plant protection products is assessed using the Treatment Frequency Index of each plot (TFIp) [2]:

$$TFIp = \sum_i \frac{ARt}{HRt} * \frac{TAt}{PA}$$

with ARt the applied dose of the product t, HRt the registered rate of product; TAt the treated area of the plot with the product t and PA, the plot area.

TFIp is calculated with pesticide spraying surveyed for each plot every year from 2013 to 2018. *TFI-total* is calculated for all total pesticide, *TFI-fungicides* is calculated for fungicide category considered separately, *TFI-biocontrol* is calculated for biocontrol category considered separately (Table 3).

*I-Phy* indicator is calculated according to [3] method and with plots pesticide spraying survey every year from 2013 to 2018 (Table 4). *I-Phy* indicator was based on an indicator calculated for each active ingredient (a.i.) and consisting in a fuzzy decision tree aggregating sub-indicators expressing the risk respectively for groundwater, surface water, air, and beneficial organisms for vine with a last one based on the amount of a.i. All the sub-indicators are structured on the same way in fuzzy decision tree aggregating variables of pesticide properties, pesticide spraying and field sensibility to pesticide transfer [4]. All the sub-indicators are expressed on the same scale between 0 (unacceptable risk) and 10 (no risk).

*Copper rate* is the indicator informing us on the level of copper used on each plot. Copper rate is calculated as the amount of copper applied per hectare each year. Copper is an active ingredient for a lot of biocontrol fungicides (Table 5).

### 2.4. Soil characterization

*Soil compaction* is assessed according to root presence and soil settling level in soil cultivation profile that was performed once for each plot [5–7]. The scale of soil compaction, based on the observation of roots percentage in the soil cultivation profiles, goes from 0 (no soil settling with holes and roots, i.e. no soil compaction) to 100 (total soil settling without hole neither root, i.e. totally compacted soil). The reference to have an acceptable soil settling is under 20. This level of soil compaction corresponds to the minimal space allowing the vine's root development.

**Table 6**

Compaction rate of the different soil zones of studied plots.

#code	Year	Plot zone	Soil compaction
A	2015	Under row in surface 0-20 cm	0
A	2015	Plowing between rows in surface 0-20 cm	0
A	2015	Cover crop between rows in surface 0-20 cm	0.8
A	2015	Under row in depth 20-60 cm	0.2
A	2015	Plowing between rows in depth 20-60 cm	0.6
A	2015	Cover crop between rows in depth 20-60 cm	0.8
B	2015	Under row in surface 0-20 cm	0
B	2015	Plowing between rows in surface 0-20 cm	0.8
B	2015	Cover crop between rows in surface 0-20 cm	0.8
B	2015	Under row in depth 20-60 cm	0.6
B	2015	Plowing between rows in depth 20-60 cm	0.8
B	2015	Cover crop between rows in depth 20-60 cm	0.8
C	2015	Under row in surface 0-20 cm	0
C	2015	Plowing between rows in surface 0-20 cm	0.4
C	2015	Cover crop between rows in surface 0-20 cm	0
C	2015	Under row in depth 20-60 cm	0.8
C	2015	Plowing between rows in depth 20-60 cm	0.8
C	2015	Cover crop between rows in depth 20-60 cm	0.4
D	2015	Under row in surface 0-20 cm	0
D	2015	Plowing between rows in surface 0-20 cm	0.4
D	2015	Cover crop between rows in surface 0-20 cm	0
D	2015	Under row in depth 20-60 cm	0.8
D	2015	Plowing between rows in depth 20-60 cm	0.8
D	2015	Cover crop between rows in depth 20-60 cm	0.4
E	2015	Under row in surface 0-20 cm	0
E	2015	Plowing between rows in surface 0-20 cm	0
E	2015	Cover crop between rows in surface 0-20 cm	0
E	2015	Under row in depth 20-60 cm	0.2
E	2015	Plowing between rows in depth 20-60 cm	0.4
E	2015	Cover crop between rows in depth 20-60 cm	0.4
F	2015	Under row in surface 0-20 cm	0
F	2015	Plowing between rows in surface 0-20 cm	0
F	2015	Cover crop between rows in surface 0-20 cm	0.2
F	2015	Under row in depth 20-60 cm	0
F	2015	Plowing between rows in depth 20-60 cm	0
F	2015	Cover crop between rows in depth 20-60 cm	0.6
G	2015	Under row in surface 0-20 cm	0.2
G	2015	Plowing between rows in surface 0-20 cm	0
G	2015	Cover crop between rows in surface 0-20 cm	0
G	2015	Under row in depth 20-60 cm	0.4
G	2015	Plowing between rows in depth 20-60 cm	0.4
G	2015	Cover crop between rows in depth 20-60 cm	0.4
H	2015	Under row in surface 0-20 cm	0
H	2015	Plowing between rows in surface 0-20 cm	0
H	2015	Cover crop between rows in surface 0-20 cm	0
H	2015	Under row in depth 20-60 cm	0.4
H	2015	Plowing between rows in depth 20-60 cm	1
H	2015	Cover crop between rows in depth 20-60 cm	0.6
I	2015	Under row in surface 0-20 cm	0
I	2015	Plowing between rows in surface 0-20 cm	0
I	2015	Cover crop between rows in surface 0-20 cm	0.4
I	2015	Under row in depth 20-60 cm	0
I	2015	Plowing between rows in depth 20-60 cm	0.4
I	2015	Cover crop between rows in depth 20-60 cm	0
J	2015	Under row in surface 0-20 cm	0
J	2015	Plowing between rows in surface 0-20 cm	0
J	2015	Cover crop between rows in surface 0-20 cm	0
J	2015	Under row in depth 20-60 cm	0
J	2015	Plowing between rows in depth 20-60 cm	0.8
J	2015	Cover crop between rows in depth 20-60 cm	0.8

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**Table 6** (continued)

#code	Year	Plot zone	Soil compaction
K	2015	Under row in surface 0-20 cm	0
K	2015	Plowing between rows in surface 0-20 cm	0
K	2015	Cover crop between rows in surface 0-20 cm	0
K	2015	Under row in depth 20-60 cm	0.4
K	2015	Plowing between rows in depth 20-60 cm	0.4
K	2015	Cover crop between rows in depth 20-60 cm	0.4

Soil profiles were performed for three zones: under vine row (0.3m large), the plowed interrow (0.5m large) and the covered crop interrow (0.5m large). For each soil profile, soil compaction is assessed in two depth zones: in the 0-0.2m and in the 0.2m-0.6m depths. For each plot, we get six soil compaction assessment according to the 3-zone\*2-depth of the system soil, once in 2015 (Table 6).

*Bacterial activity in soil* was assessed by the Biolog EcoPlate system (Biolog®). Each 96-well plate consists of three replicates, each one comprising 31 sole carbon sources and water blank. Bacterial concentration of soil suspensions (soil 10 g, distilled water 100 ml) was determined by counts of colony forming units on LB Agar medium. The extracts were diluted to inoculate 1500 bacteria in a volume of 125  $\mu$ L per well. After 48h of plate incubation with soil suspension at 25°C, color development in each well was recorded as optical density (OD) at 590 nm. Microbial activity in each microplate, expressed as average well-color development (AWCD) was determined as follows:

$$AWCD = \sum (OD_i) / 31$$

Where OD is the optical density value from each well (corrected by subtraction of the blank control value). This indicator is used to evaluate both the soil bacterial capacity to degrade 31 sources of carbon and the show the metabolism diversity of soil bacterial communities, by their capacity to degrade 31 sources of carbon.

*Bacterial molecular biomass* is measured by quantitative PCR. Total soil DNA was extracted from 0,25g of sieved soil using the PowerSoil extraction Kit of MoBio, following the manufacturer's instruction. After soil DNA extraction, For each type of microorganisms (bacteria and fungi), DNA concentration was estimated by a real-time PCR using universal primers sets (fungus: FU18S1 and Nu-SSU-1536 for fungus [8], bacteria: Prok1492R and Bact1369F [9] for bacteria). A dilution series of known amounts of fungal reference genomic DNA was used as the standard for quantification. The mix was prepared as follows: 5  $\mu$ L of DNA extract at 1 ng/ $\mu$ L, 0,3  $\mu$ L of each primer at 20  $\mu$ M, 10  $\mu$ L of qPCR Sybr Green Mix (reference fabricant) and 4,4  $\mu$ L of deionized water. After an initial denaturation step, 35 cycles of PCR were performed in the thermocycler (Agilent Technologies – AriaMx Real-Time PCR System – G8830A) as follow: 30 s at 95°C, 30s at 62°C for fungus or 56°C for bacteria and 30s at 72°C. The 16S DNA bacterial biomass and 18S DNA fungi biomass were used to evaluate the effect of soil management on the total soil microbial biomass.

*Potential N mineralization rates* were determined using a protocol derived from ISO 14238. Soil samples (25 g) were incubated at 28°C and soil extract was analyzed regularly extracted with 100 ml KCl (1 M) for 1 h in an orbital shaker (20 rpm; 20°C) after 0, 7, 14, 28 and 56 days of incubation at 28°C. After filtration, the extracts were analyzed for NH<sub>4</sub> and NO<sub>3</sub> concentrations n to determine the potentially mineralizable nitrogen N<sub>min</sub> (N-NH<sub>4</sub><sup>+</sup> plus N-NO<sub>3</sub>). The cumulative amount of inorganic nitrogen mineralized at various time was fitted with a single exponential model according to Deans et al. (1986), [10] as bellow:

$$N_{min} = N_{(0)}(1 - e^{(-KT)})$$

Where N<sub>0</sub> (expressed in mgN/kgDM soil) is the maximal potential mineralized nitrogen of soil and K (expressed in day<sup>-1</sup>) is the *speed of nitrogen mineralization in the soil*.

**Table 7**

Bacteria and nitrogen metrics in the soil of each studied plot assessed at different phenological stages of the vine.

#code	Year	AWCD Budburst	AWCD Veraison	AWCD Leaf fall	k Budburst	J15 Budburst	J90 Budburst	16S copies Budburst	16S copies Veraison	16S copies Leaf fall	18S copies Budburst	18S copies veraison	18S copies Leaf fall
A	2013												
A	2014	0.28	0.22	0.44	0.0107	11.647	49.006	3.87E+11	4.33E+11	8.71E+11	1.38E+10	2.21E+10	6.50E+10
A	2015	0.32	0.28	0.21	0.0077	8.610	39.545	8.41E+11	3.73E+11	1.16E+11	7.30E+10	1.04E+11	5.19E+10
A	2016												
A	2017												
A	2018												
B	2013												
B	2014	0.50	0.22	0.30	0.0110	15.509	66.356	3.29E+11	3.76E+11	6.46E+11	2.93E+10	2.99E+10	8.11E+10
B	2015	0.25	0.14	0.15	0.0065	14.418	68.504	7.46E+11	4.75E+11	1.81E+11	8.94E+10	1.54E+11	5.63E+10
B	2016												
B	2017												
B	2018	0.35	0.33	0.56	0.0261	45.676	130.294	7.58E+10	3.20E+10	6.86E+10	7.58E+08	2.19E+09	6.10E+09
C	2013												
C	2014												
C	2015												
C	2016												
C	2017												
C	2018												
D	2013												
D	2014	0.26	0.08	0.38	0.0170	10.255	35.965	4.07E+11	4.29E+11	5.44E+11	1.01E+10	3.41E+10	8.38E+10
D	2015	0.35	0.31	0.22	0.0095	9.677	42.265	4.65E+11	4.83E+11	1.56E+11	3.24E+10	5.17E+10	1.93E+10
D	2016												
D	2017												
D	2018												
E	2013												
E	2014												
E	2015	0.30	0.41	0.25	0.0310	24.951	63.355	1.18E+12	4.48E+11	5.13E+10	1.05E+11	1.38E+11	2.92E+10
E	2016	0.55	0.46	0.25	0.0270	22.306	61.095	1.03E+12	1.30E+12	2.00E+12	1.17E+11	1.99E+11	1.71E+11
E	2017												
E	2018	0.36	0.33	1.03	0.0257	23.271	65.856	6.52E+10	2.55E+10	8.00E+10	6.97E+08	1.75E+09	6.67E+09
F	2013												
F	2014												
F	2015	0.48	0.89	0.31	0.0318	17.887	46.142	6.32E+11	3.62E+11	2.74E+10	1.37E+11	1.19E+11	2.02E+10
F	2016	0.69	0.28	0.22	0.0238	18.968	55.483	1.21E+12	9.08E+11	1.65E+12	1.75E+11	1.14E+11	1.23E+11
F	2017												
F	2018	0.38	0.49	0.86	0.0313	27.146	70.401	1.03E+11	3.46E+10	1.36E+11	1.81E+09	3.11E+09	5.78E+09

*(continued on next page)*

Table 7 (continued)

#code	Year	AWCD Budburst	AWCD Veraison	AWCD Leaf fall	k Budburst	J15 Budburst	J90 Budburst	16S copies Budburst	16S copies Veraison	16S copies Leaf fall	18S copies Budburst	18S copies veraison	18S copies Leaf fall
G	2013												
G	2014	0.63	0.17	0.27	0.0083	8.660	38.964	4.23E+11	2.89E+11	9.35E+11	7.08E+10	3.22E+10	2.96E+11
G	2015	0.32	0.42	0.31	0.1072	1.480	2.685	1.40E+12	2.49E+11	1.68E+11	2.95E+11	1.24E+11	3.53E+11
G	2016												
G	2017												
G	2018	0.50	0.46	0.68	0.0366	68.953	164.156	2.45E+11	9.16E+10	1.34E+11	2.03E+09	9.40E+09	1.01E+10
H	2013												
H	2014	0.87	0.87	0.60	0.0131	10.616	42.878	5.21E+11	8.78E+11	6.83E+11	4.04E+10	2.77E+11	6.41E+10
H	2015	0.42	0.72	0.24	0.0123	13.909	55.267	7.69E+11	2.61E+11	9.31E+10	7.17E+10	5.45E+10	6.89E+11
H	2016												
H	2017												
H	2018												
I	2013												
I	2014	1.15	1.05	0.29	0.0187	16.497	54.615	3.60E+11	1.41E+12	1.88E+12	3.84E+10	4.67E+11	1.98E+11
I	2015	0.30	0.65	0.34	0.0109	12.880	52.617	1.46E+12	4.87E+11	2.53E+11	4.01E+11	1.69E+11	1.10E+11
I	2016												
I	2017												
I	2018												
J	2013												
J	2014												
J	2015	0.40						6.96E+11			1.34E+11		
J	2016	0.63						9.89E+11			9.49E+10		
J	2017												
J	2018	0.44						4.78E+10			6.13E+08		
K	2013												
K	2014												
K	2015	0.30						5.51E+11			9.62E+10		
K	2016	0.63						1.00E+12			9.75E+10		
K	2017												
K	2018	0.42						5.05E+10			1.43E+09		

**Table 8**

Relative pollination value and the total specific floristic richness of each studied plot from 2015 to 2018.

#code	Year	Relative pollination value	Total specific floristic richness
A	2013		
A	2014	36	66
A	2015	45	83
A	2016	38	70
A	2017	38	69
A	2018	40	73
B	2013		
B	2014	24	39
B	2015	33	52
B	2016	34	55
B	2017	38	61
B	2018	42	67
C	2013		
C	2014	39	67
C	2015	47	81
C	2016	41	71
C	2017	38	66
C	2018	41	71
D	2013		
D	2014	38	66
D	2015	45	79
D	2016	35	61
D	2017	37	65
D	2018	41	72
E	2013		
E	2014		
E	2015	39	63
E	2016	36	57
E	2017	56	53
E	2018	53	70
F	2013		
F	2014		
F	2015	38	63
F	2016	41	68
F	2017	56	64
F	2018	58	72
G	2013		
G	2014	33	50
G	2015	30	46
G	2016	33	50
G	2017	33	50
G	2018	43	65
H	2013		
H	2014	33	50
H	2015	42	65
H	2016	33	51
H	2017	37	57
H	2018	41	63
I	2013		
I	2014	43	78
I	2015	44	71
I	2016	49	81
I	2017	50	81
I	2018	57	94
J	2013		
J	2014		
J	2015	42	66
J	2016	45	65
J	2017	37	53
J	2018	49	80

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**Table 8** (continued)

#code	Year	Relative pollination value	Total specific floristic richness
K	2013		
K	2014		
K	2015	47	78
K	2016	39	57
K	2017	52	60
K	2018	56	67

*Amount of available nitrogen in soil* (in mgN.kgDM<sup>-1</sup> of soil) at veraison is the calculated rate of mineralization, after 15 days according to the equation above (equivalent time calculated with the climatic factor as described by [11]:  $f(T\Psi)=4,46$  (medium temperature in Alsace: 10,1°C), 15days equivalents to 4 months).

Regarding the strong dependence of biological indicators to soil characteristics and climate, we chose to define the two-nitrogen indicators reference as the medium value of initial measure of all systems. These values reflect the effect of climate and soil characteristics of Alsace vineyard, and are the measure made at the beginning of the experiment, shortly after the first measures for the reducing of pesticide use. Measurement of nitrogen potentially available in soil assesses ability of soil microbial communities to mineralize organic nitrogen into mineral nitrogen. This mineral nitrogen is then available for vine at veraison for bunch maturing to accumulate sugar and acids and thus have a good ripening phase of the berries (connected then to juice sugar and total acid and wine sensory indicators) (Table 7). The missing data in Table 7 are due to a lack of financial support.

## 2.5. Biodiversity characterization

*Total specific floristic richness* and *relative pollination value* which inform us on pollination ecosystemic service were measured based on botanical surveys carried out three times a year from 2014 to 2018 during spring for the 11 plots.

*Total specific floristic richness* is the number of floristic species present on a 500m<sup>2</sup> plot located at the center of the systems' parcel, in order to avoid border effects [12]. *Total specific floristic richness* is based on a botanical survey identifying of all floristic species present in the 500m<sup>2</sup> plots for each survey.

*Relative pollination value* is calculated based on the total specific richness indicator. The domestic bee was chosen as a reference even if entomophilic pollination is marginal in vines. A pollination value reading domestic bee and varying between 0 (no pollination value for the domestic bee) and 10 (high pollination value for the domestic bee) is attributed for all the species identified according to [13]. The reference value 3.5 corresponds to an acceptable pollination interest for domestic bee. *Relative pollination value* is the percentage representing the relative proportion of floristic species presenting a pollination value above 3.5 compared to the total number of floristic species of each survey (Table 8). 2013 data are missing in Table 8 because 2013 was the implementation of the choice of biodiversity indicators. 2014 data are missing in Table 8 for systems E, F, J and K because 2014 was their vine planting year.

## 2.6. Growth and yield characterization

*Vine vigour* was measured by weighting winter-pruned wood. On each plot and for each year, the grapevines of the 3 sub-plots of 10 grapevines were hand pruned in December, and their canes were collected and weighed immediately all together for each sub-plot [14] (Table 9).



**Table 9**

Winter pruning weight measurements at different locations (placettes) in each studied plot and year of measurement.

#code	Year	Placette	Weight of winter pruning wood (kg.vine-1)
A	2013	1	0.73
A	2013	5	0.93
A	2013	9	0.82
A	2014	4	0.75
A	2014	5	0.83
A	2014	6	0.82
A	2015	4	0.93
A	2015	5	0.73
A	2015	6	0.91
A	2016	4	1.13
A	2016	5	1.17
A	2016	6	0.82
A	2017	4	0.78
A	2017	5	0.82
A	2017	6	0.90
A	2018	1	0.85
A	2018	2	0.96
A	2018	3	0.78
A	2018	4	0.88
A	2018	5	0.95
A	2018	6	0.80
A	2018	7	1.01
A	2018	8	0.53
A	2018	9	0.74
B	2013	1	0.67
B	2013	2	0.79
B	2013	3	0.61
B	2013	4	0.56
B	2013	5	0.55
B	2014	1	0.53
B	2014	2	0.60
B	2014	3	0.50
B	2014	4	0.44
B	2014	5	0.50
B	2014	6	0.38
B	2014	7	0.55
B	2014	8	0.40
B	2014	9	0.50
B	2014	10	0.49
B	2015	2	0.71
B	2015	3	0.63
B	2015	4	0.56
B	2016	1	0.85
B	2016	2	0.79
B	2016	3	0.69
B	2016	4	0.73
B	2016	5	0.74
B	2017	1	1.02
B	2017	2	1.06
B	2017	3	0.78
B	2017	4	0.88
B	2017	5	0.76
B	2018	1	0.88
B	2018	2	0.77
B	2018	3	0.78
B	2018	4	0.86
B	2018	5	1.08
B	2018	6	0.78
B	2018	7	1.19
B	2018	8	0.86

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**Table 9** (continued)

#code	Year	Placette	Weight of winter pruning wood (kg.vine-1)
C	2013	1	0.80
C	2013	5	0.90
C	2013	9	0.58
C	2014	4	0.39
C	2014	5	0.60
C	2014	6	0.60
C	2015	4	0.58
C	2015	5	0.41
C	2015	6	0.40
C	2015	1	0.19
C	2016	4	0.79
C	2016	5	0.71
C	2016	6	0.44
C	2017	4	0.62
C	2017	5	0.59
C	2017	6	0.50
C	2018	1	0.81
C	2018	2	0.85
C	2018	3	0.51
C	2018	4	0.64
C	2018	5	0.64
C	2018	6	0.40
C	2018	7	0.59
C	2018	8	0.57
C	2018	9	0.52
D	2013	1	0.74
D	2013	5	0.54
D	2013	9	0.56
D	2014	4	0.50
D	2014	5	0.50
D	2014	6	0.66
D	2015	4	0.32
D	2015	5	0.52
D	2015	6	0.31
D	2016	4	0.69
D	2016	5	0.65
D	2016	6	0.60
D	2017	4	0.50
D	2017	5	0.52
D	2017	6	0.44
D	2018	1	0.96
D	2018	2	0.62
D	2018	3	0.49
D	2018	4	0.65
D	2018	5	0.59
D	2018	6	0.70
D	2018	7	0.70
D	2018	8	0.67
D	2018	9	0.61
E	2016	1	0.10
E	2016	2	0.13
E	2016	3	0.25
E	2017	1	0.22
E	2017	2	0.25

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**Table 9** (continued)

#code	Year	Placette	Weight of winter pruning wood (kg.vine-1)
E	2017	3	0.45
E	2018	1	0.43
E	2018	2	0.46
E	2018	3	0.50
E	2018	4	0.40
E	2018	5	0.56
E	2018	6	0.52
E	2018	7	0.77
E	2018	8	0.48
E	2018	9	0.57
F	2016	1	0.22
F	2016	2	0.33
F	2016	3	0.24
F	2017	1	0.33
F	2017	2	0.25
F	2017	3	0.32
F	2018	1	0.2875
F	2018	2	0.44
F	2018	3	0.41
F	2018	4	0.48
F	2018	5	0.63
F	2018	6	0.53
F	2018	7	0.38
F	2018	8	0.47
F	2018	9	0.60
G	2013	1	0.41
G	2013	2	0.55
G	2013	3	0.46
G	2013	4	0.40
G	2013	5	0.53
G	2014	1	0.39
G	2014	2	0.45
G	2014	3	0.42
G	2014	4	0.36
G	2014	5	0.36
G	2014	6	0.42
G	2014	7	0.38
G	2014	8	0.39
G	2014	9	0.42
G	2015	2	0.50
G	2015	3	0.42
G	2015	4	0.43
G	2016	2	0.49
G	2016	3	0.49
G	2016	4	0.40
G	2016	5	0.43
G	2016	1	0.70
G	2017	1	0.67
G	2017	2	0.55
G	2017	3	0.68
G	2017	4	0.47
G	2017	5	1.00
G	2018	1	0.90
G	2018	2	0.70
G	2018	3	0.53
G	2018	4	0.47
G	2018	5	0.70
G	2018	6	0.71
G	2018	7	0.70

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**Table 9** (continued)

#code	Year	Placette	Weight of winter pruning wood (kg.vine-1)
H	2013	1	0.62
H	2013	5	0.68
H	2013	9	0.62
H	2014	4	0.42
H	2014	5	0.45
H	2014	6	0.39
H	2015	4	0.51
H	2015	5	0.50
H	2015	6	0.31
H	2016	4	0.86
H	2016	5	0.61
H	2016	6	0.77
H	2017	1	0.36
H	2017	2	0.34
H	2017	3	0.27
H	2017	4	0.49
H	2017	5	0.36
H	2017	6	0.38
H	2017	7	0.40
H	2017	8	0.44
H	2017	9	0.46
H	2018	1	0.65
H	2018	2	0.68
H	2018	3	0.74
H	2018	4	0.60
H	2018	5	0.67
H	2018	6	0.84
H	2018	7	0.75
H	2018	8	0.80
H	2018	9	0.54
I	2013	1	0.80
I	2013	5	0.80
I	2013	9	0.75
I	2014	2	0.42
I	2014	5	0.50
I	2014	8	0.62
I	2015	2	0.44
I	2015	5	0.63
I	2015	8	0.73
I	2016	2	0.42
I	2016	5	0.67
I	2016	8	0.72
I	2017	1	0.55
I	2017	2	0.34
I	2017	3	0.54
I	2017	4	0.45
I	2017	5	0.46
I	2017	6	0.42
I	2017	7	0.49
I	2017	8	0.57
I	2017	9	0.47
I	2018	1	0.66
I	2018	2	0.38
I	2018	3	0.68
I	2018	4	0.35
I	2018	5	0.40
I	2018	6	0.37
I	2018	7	0.41

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**Table 9** (continued)

#code	Year	Placette	Weight of winter pruning wood (kg.vine-1)
I	2018	8	0.63
I	2018	9	0.30
I	2018	10	0.84
J	2016	1	0.09
J	2016	2	0.07
J	2016	3	0.05
J	2017	1	0.26
J	2017	2	0.37
J	2017	3	0.28
J	2018	1	0.90
J	2018	2	0.81
J	2018	3	0.61
J	2018	4	0.69
J	2018	5	0.87
J	2018	6	0.85
J	2018	7	0.66
J	2018	8	0.80
J	2018	9	0.88
K	2016	1	0.06
K	2016	2	0.10
K	2016	3	0.11
K	2017	1	0.19
K	2017	2	0.33
K	2017	3	0.28
K	2018	1	0.57
K	2018	2	0.49
K	2018	3	0.49
K	2018	4	0.76
K	2018	5	0.63
K	2018	6	0.58
K	2018	7	0.52
K	2018	8	0.68
K	2018	9	0.44

*Plot yield* was measured at harvest on 10 randomly picked grapevines (in kg.vine-1) on several sub-plots of each of the 11 plots.

On A, C, D, E, F, H, J, K plots: vine yield is measured on 9 sub-plots each; on B, G plots: 5 sub-plots each and on I-plot: 10 sub-plots each.

Bunches are weighted on each sub-plot. Bunches are numbered per vine on each sub-plot.

Planting density is calculated with an average of 2013–2018 according to (i) spacing between vine rows, (ii) spacing on the vine row and (iii) corrected by the count of dead grapevines in the plot each year. The plot yield (in kg.ha-1) was then calculated using bunches weight multiplied by the averaged planting density of each plot every studied year (Table 10).

Powdery mildew and grey rot characterization: The intensity and frequency rating damage on bunch due to powdery mildew and grey rot at harvest has been measured by visual observation by experts from local extension services. Every bunch presenting disease attack is considered as damaged. The total number of bunches of each vine divided by the number of damages bunches gives the powdery mildew and grey rot frequency rating damage for each disease (i.e. percentage of the total bunches per vine).

Then, powdery mildew and grey rot intensity damage is assessed on each damage bunch (i.e. percentage of attack) and finally multiplied by the frequency rating damage to yield the powdery mildew and grey rot intensity indicators (%) (Table 11).

**Table 10**

Detailed measurements of the grape yield at different locations (placettes) in each studied plot and year of measurement (the weight of a bunch, the number of bunches per vine, the yield per hectare).

#code	Year	Placette	Bunch weight (kg)	Number of bunches.vine-1	Yield (kg.ha-1)
A	2013	1	0.117	28.40	13060
A	2013	2	0.082	30.90	9883
A	2013	3	0.078	30.20	9256
A	2013	4	0.090	24.20	8550
A	2013	5	0.090	26.60	9374
A	2013	6	0.093	30.60	11217
A	2013	7	0.093	21.80	7962
A	2013	8	0.094	22.70	8393
A	2013	9	0.090	27.10	9570
A	2014	1	0.121	24.50	11608
A	2014	2	0.102	36.50	14667
A	2014	3	0.092	33.00	11922
A	2014	4	0.110	27.00	11608
A	2014	5	0.109	23.10	9882
A	2014	6	0.101	30.60	12157
A	2014	7	0.103	25.00	10118
A	2014	8	0.110	27.90	12078
A	2014	9	0.109	26.90	11490
A	2015	1	0.138	21.70	11725
A	2015	2	0.120	33.90	16000
A	2015	3	0.117	35.90	16471
A	2015	4	0.113	23.70	10510
A	2015	5	0.122	19.50	9294
A	2015	6	0.132	24.40	12588
A	2015	7	0.119	38.10	17843
A	2015	8	0.130	27.10	13843
A	2015	9	0.127	35.70	17725
A	2016	1	0.136	30.80	16472
A	2016	2	0.122	36.40	17414
A	2016	3	0.115	26.64	11980
A	2016	4	0.126	29.00	14276
A	2016	5	0.119	40.10	18747
A	2016	6	0.118	41.70	19375
A	2016	7	0.111	26.90	11688
A	2016	8	0.131	31.11	16037
A	2016	9	0.121	26.30	12472
A	2017	1	0.143	26.60	14904
A	2017	2	0.119	22.10	10315
A	2017	3	0.131	18.30	9413
A	2017	4	0.128	23.30	11727
A	2017	5	0.125	21.20	10433
A	2017	6	0.105	21.10	8668
A	2017	7	0.135	32.90	17414
A	2017	8	0.136	25.78	13771
A	2017	9	0.129	22.40	11335
A	2018	1	0.144	35.18	19860
A	2018	2	0.127	45.60	22630
A	2018	3	0.112	43.91	19218
A	2018	4	0.128	48.60	24356
A	2018	5	0.138	52.00	28042
A	2018	6	0.122	62.30	29807
A	2018	7	0.149	32.64	19040
A	2018	8	0.119	31.11	14555
A	2018	9	0.123	34.82	16865
B	2013	1	0.085	27.10	10312
B	2013	2	0.090	26.50	10669
B	2013	3	0.075	30.22	10118
B	2013	4	0.060	25.20	6785
B	2013	5	0.058	40.33	10466
B	2014	1	0.065	47.00	13661

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**Table 10** (continued)

#code	Year	Placette	Bunch weight (kg)	Number of bunches.vine-1	Yield (kg.ha-1)
B	2014	2	0.080	22.10	7857
B	2014	3	0.077	19.40	6696
B	2014	4	0.070	50.30	15759
B	2014	5	0.057	22.30	5714
B	2014	6	0.058	24.20	6250
B	2015	1	0.065	32.44	9425
B	2015	2	0.074	35.89	11855
B	2015	3	0.056	29.44	7391
B	2015	4	0.062	32.44	8929
B	2016	1	0.103	27.29	12604
B	2016	2	0.093	17.68	7330
B	2016	3	0.084	19.65	7352
B	2016	4	0.090	25.47	10291
B	2016	5	0.084	34.21	12828
B	2017	1	0.108	18.25	8817
B	2017	2	0.100	25.00	11161
B	2017	3	0.105	13.54	6319
B	2017	4	0.103	22.25	10268
B	2017	5	0.099	34.33	15129
B	2018	1	0.121	23.29	12628
B	2018	2	0.114	23.33	11905
B	2018	3	0.090	13.60	5446
B	2018	4	0.103	24.33	11235
B	2018	5	0.120	22.00	11830
C	2013	1	0.111	22.00	9609
C	2013	2	0.108	24.20	10236
C	2013	3	0.090	16.20	5687
C	2013	4	0.093	23.50	8589
C	2013	5	0.099	24.10	9374
C	2013	6	0.110	19.60	8432
C	2013	7	0.084	20.90	6903
C	2013	8	0.092	28.80	10354
C	2013	9	0.098	21.30	8197
C	2014	1	0.112	19.30	8471
C	2014	2	0.112	23.10	10118
C	2014	3	0.099	20.90	8078
C	2014	4	0.071	26.70	7451
C	2014	5	0.099	13.70	5333
C	2014	6	0.101	16.70	6627
C	2014	7	0.103	18.90	7608
C	2014	8	0.096	18.30	6902
C	2014	9	0.091	14.70	5255
C	2015	1	0.108	14.67	6187
C	2015	2	0.111	15.40	6706
C	2015	3	0.137	12.60	6745
C	2015	4	0.111	19.60	8549
C	2015	5	0.105	26.40	10824
C	2015	6	0.098	19.30	7412
C	2015	7	0.118	20.80	9608
C	2015	8	0.109	17.80	7608
C	2015	9	0.107	20.60	8667
C	2016	1	0.088	17.78	6101
C	2016	2	0.094	7.90	2902
C	2016	3	0.096	13.40	5020
C	2016	4	0.090	15.56	5491
C	2016	5	0.079	13.20	4079
C	2016	6	0.085	15.80	5255
C	2016	7	0.092	19.78	7147
C	2016	8	0.104	12.50	5099
C	2016	9	0.092	14.20	5099

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Table 10 (continued)

#code	Year	Placette	Bunch weight (kg)	Number of bunches.vine-1	Yield (kg.ha-1)
C	2017	1	0.138	15.67	8454
C	2017	2	0.147	16.90	9727
C	2017	3	0.142	19.90	11060
C	2017	4	0.143	19.56	10982
C	2017	5	0.138	25.00	13570
C	2017	6	0.112	17.00	7491
C	2017	7	0.139	12.80	6981
C	2017	8	0.142	15.44	8585
C	2017	9	0.120	11.10	5216
C	2018	1	0.148	42.30	24630
C	2018	2	0.145	32.30	18355
C	2018	3	0.154	28.82	17364
C	2018	4	0.133	35.00	18198
C	2018	5	0.136	44.20	23571
C	2018	6	0.135	30.00	15884
C	2018	7	0.138	46.20	25062
C	2018	8	0.141	50.40	27964
C	2018	9	0.132	43.33	22355
D	2013	1	0.096	25.30	9491
D	2013	2	0.087	17.00	5805
D	2013	3	0.097	26.30	9962
D	2013	4	0.086	18.30	6158
D	2013	5	0.088	17.20	5922
D	2013	6	0.086	19.70	6628
D	2013	7	0.101	19.40	7687
D	2013	8	0.092	21.30	7687
D	2013	9	0.095	22.30	8275
D	2014	1	0.096	22.80	8549
D	2014	2	0.101	20.80	8275
D	2014	3	0.093	25.60	9333
D	2014	4	0.105	26.90	11059
D	2014	5	0.099	19.30	7529
D	2014	6	0.091	23.60	8392
D	2014	7	0.110	24.80	10745
D	2014	8	0.109	31.90	13647
D	2014	9	0.108	21.10	8941
D	2015	1	0.099	21.20	8196
D	2015	2	0.102	20.10	8039
D	2015	3	0.099	18.00	6972
D	2015	4	0.094	12.89	4749
D	2015	5	0.109	15.90	6784
D	2015	6	0.108	12.80	5412
D	2015	7	0.107	20.10	8431
D	2015	8	0.104	25.20	10235
D	2015	9	0.102	18.80	7529
D	2016	1	0.126	19.10	9413
D	2016	2	0.131	15.10	7766
D	2016	3	0.115	16.78	7583
D	2016	4	0.122	13.33	6362
D	2016	5	0.124	12.30	5961
D	2016	6	0.107	26.00	10870
D	2016	7	0.105	17.70	7295
D	2016	8	0.112	19.60	8628
D	2016	9	0.121	16.20	7687
D	2017	1	0.135	18.33	9674
D	2017	2	0.123	20.11	9718
D	2017	3	0.122	17.00	8158
D	2017	4	0.135	19.38	10295
D	2017	5	0.117	17.90	8197
D	2017	6	0.127	17.38	8677

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**Table 10** (continued)

#code	Year	Placette	Bunch weight (kg)	Number of bunches.vine-1	Yield (kg.ha-1)
D	2017	7	0.135	18.20	9648
D	2017	8	0.127	17.90	8942
D	2017	9	0.130	20.00	10197
D	2018	1	0.140	40.00	22007
D	2018	2	0.147	25.80	14904
D	2018	3	0.144	40.78	22965
D	2018	4	0.134	43.13	22699
D	2018	5	0.161	35.60	22473
D	2018	6	0.138	42.40	22983
D	2018	7	0.131	37.90	19414
D	2018	8	0.146	30.09	17221
D	2018	9	0.135	47.13	24905
E	2017	7	0.100	1.00	485
E	2017	8	0.100	1.13	546
E	2017	9	0.140	1.88	1273
E	2017	16	0.138	1.60	1067
E	2017	17	0.133	1.00	647
E	2017	18	0.150	0.43	312
E	2017	34	0.070	9.20	3128
E	2017	35	0.180	10.20	8924
E	2017	36	0.548	3.67	9754
E	2018	7	0.152	27.50	20309
E	2018	8	0.134	48.00	31283
E	2018	9	0.140	41.69	28317
E	2018	16	0.131	41.57	26329
E	2018	17	0.139	43.75	29464
E	2018	18	0.113	52.09	28659
E	2018	34	0.161	38.10	29828
E	2018	35	0.172	30.30	25317
E	2018	36	0.225	34.79	38038
F	2017	10	0.121	12.40	7275
F	2017	11	0.155	12.50	9367
F	2017	12	0.134	21.38	13883
F	2017	19	0.140	8.10	5481
F	2017	20	0.176	11.80	10064
F	2017	21	0.169	16.44	13472
F	2017	31	0.147	16.00	11438
F	2017	32	0.140	9.50	6451
F	2017	33	0.155	16.33	12287
F	2018	10	0.138	25.50	17096
F	2018	11	0.129	31.00	19346
F	2018	12	0.152	29.79	21894
F	2018	19	0.136	25.60	16830
F	2018	20	0.160	32.00	24784
F	2018	21	0.172	28.38	23690
F	2018	31	0.163	26.33	20801
F	2018	32	0.160	25.57	19816
F	2018	33	0.185	24.45	21913
G	2013	1	0.075	34.40	11472
G	2013	2	0.085	23.00	8680
G	2013	3	0.077	37.89	13045
G	2013	4	0.072	33.90	10892
G	2013	5	0.079	30.56	10714
G	2014	1	0.060	50.90	13705
G	2014	2	0.062	55.30	15313
G	2014	3	0.065	24.40	7098
G	2014	4	0.066	29.40	8616
G	2014	5	0.061	57.30	15491
G	2014	6	0.066	22.10	6518
G	2015	1		36.75	8259

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Table 10 (continued)

#code	Year	Placette	Bunch weight (kg)	Number of bunches.vine-1	Yield (kg.ha-1)
G	2015	2	0.046	37.29	7717
G	2015	3	0.042	37.30	7009
G	2015	4	0.045	27.90	5625
G	2015	5	0.049	29.10	6429
G	2016	1	0.063	26.50	7477
G	2016	2	0.072	24.47	7878
G	2016	3	0.068	16.84	5122
G	2016	4	0.063	28.56	8035
G	2016	5	0.079	30.50	10788
G	2017	1	0.088	30.38	11998
G	2017	2	0.091	36.00	14583
G	2017	3	0.087	35.54	13874
G	2017	4	0.084	17.83	6696
G	2017	5	0.101	27.33	12351
G	2018	1	0.288	15.63	20089
G	2018	2	0.318	17.45	24756
G	2018	3	0.239	18.17	19345
G	2018	4	0.283	24.17	30506
G	2018	5	0.342	20.18	30844
H	2013	1	0.059	39.10	9542
H	2013	2	0.054	34.78	7778
H	2013	3	0.074	38.00	11667
H	2013	4	0.064	36.80	9875
H	2013	5	0.057	36.10	8542
H	2013	6	0.064	35.11	9306
H	2013	7	0.060	43.89	11019
H	2013	8	0.054	23.30	5208
H	2013	9	0.067	40.44	11250
H	2014	1	0.059	28.20	6958
H	2014	2	0.057	26.60	6292
H	2014	3	0.075	30.90	9708
H	2014	4	0.069	28.40	8167
H	2014	5	0.067	28.60	8000
H	2014	6	0.065	26.50	7208
H	2014	7	0.074	28.20	8667
H	2014	8	0.072	20.50	6167
H	2014	9	0.058	33.00	8000
H	2014	10	0.062	30.10	7792
H	2015	1	0.082	21.40	7292
H	2015	2	0.079	20.33	6667
H	2015	3	0.077	32.50	10458
H	2015	4	0.074	30.40	9333
H	2015	5	0.073	22.56	6852
H	2015	6	0.066	33.14	9167
H	2015	7	0.082	32.56	11157
H	2015	8	0.077	24.89	8009
H	2015	9	0.062	40.86	10476
H	2016	1	0.080	30.56	10186
H	2016	2	0.085	27.50	9792
H	2016	3	0.096	31.50	12640
H	2016	4	0.087	26.89	9723
H	2016	5	0.082	31.83	10834
H	2016	6	0.085	33.17	11807
H	2016	7	0.092	32.00	12293
H	2016	8	0.089	34.83	12918
H	2016	9	0.084	36.50	12709
H	2016	10	0.082	27.14	9286
H	2016	11	0.104	35.88	15522
H	2017	1	0.044	33.00	6084
H	2017	2	0.047	33.70	6667

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**Table 10** (continued)

#code	Year	Placette	Bunch weight (kg)	Number of bunches.vine-1	Yield (kg.ha-1)
H	2017	3	0.065	25.90	7001
H	2017	4	0.045	39.55	7463
H	2017	5	0.041	34.60	5959
H	2017	6	0.053	34.80	7751
H	2017	7	0.038	35.90	5750
H	2017	8	0.035	43.80	6376
H	2017	9	0.038	37.09	5834
H	2018	1	0.094	30.80	12043
H	2018	2	0.095	32.38	12814
H	2018	3	0.107	29.00	12918
H	2018	4	0.092	40.80	15668
H	2018	5	0.105	30.17	13196
H	2018	6	0.114	44.60	21252
H	2018	7	0.097	35.67	14353
H	2018	8	0.098	29.67	12154
H	2018	9	0.099	29.20	12084
H	2018	10	0.099	37.75	15626
H	2018	11	0.099	37.40	15418
I	2013	1	0.105	44.00	24652
I	2013	2	0.093	43.60	21658
I	2013	3	0.101	50.50	27166
I	2013	4	0.095	45.60	23048
I	2013	5	0.101	45.00	24225
I	2013	6	0.100	41.60	22353
I	2013	7	0.095	43.10	21979
I	2013	8	0.088	39.60	18610
I	2013	9	0.099	31.30	16631
I	2013	10	0.089	31.20	14866
I	2014	1	0.101	39.60	21283
I	2014	2	0.074	36.80	14545
I	2014	3	0.110	32.60	19251
I	2014	4	0.078	39.80	16684
I	2014	5	0.094	33.90	17059
I	2014	6	0.088	41.90	19626
I	2014	7	0.080	38.50	16471
I	2014	8	0.112	40.80	24385
I	2014	9	0.086	36.40	16791
I	2014	10	0.097	38.50	19947
I	2015	1	0.070	38.90	14599
I	2015	2	0.049	35.10	9144
I	2015	3	0.073	46.50	18075
I	2015	4	0.056	45.70	13690
I	2015	5	0.062	38.10	12620
I	2015	6	0.061	39.20	12781
I	2015	7	0.059	42.40	13422
I	2015	8	0.079	43.40	18235
I	2015	9	0.062	32.60	10749
I	2015	10	0.079	34.90	14706
I	2016	1	0.109	38.44	22343
I	2016	2	0.061	34.10	11124
I	2016	3	0.101	40.78	21986
I	2016	4	0.082	42.20	18397
I	2016	5	0.103	29.60	16258
I	2016	6	0.090	43.60	20964
I	2016	7	0.104	36.88	20456
I	2016	8	0.099	44.78	23769
I	2016	9	0.085	31.71	14363
I	2016	10	0.114	34.67	21154
I	2017	1	0.094	30.10	15081
I	2017	2	0.058	25.70	7915

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**Table 10** (continued)

#code	Year	Placette	Bunch weight (kg)	Number of bunches.vine-1	Yield (kg.ha-1)
I	2017	3	0.090	29.44	14142
I	2017	4	0.070	35.60	13370
I	2017	5	0.083	27.50	12167
I	2017	6	0.076	31.60	12889
I	2017	7	0.069	30.89	11468
I	2017	8	0.086	36.00	16632
I	2017	9	0.056	27.22	8200
I	2018	1	0.089	42.89	20322
I	2018	2	0.042	40.20	9038
I	2018	3	0.093	41.56	20679
I	2018	4	0.073	35.70	13905
I	2018	5	0.056	33.38	9961
I	2018	6	0.052	36.11	9983
I	2018	7	0.049	41.33	10815
I	2018	8	0.077	42.70	17541
I	2018	9	0.040	35.78	7725
I	2018	10	0.083	44.80	19948
J	2017	1	0.154	2.60	1940
J	2017	2	0.154	1.86	1386
J	2017	3	0.189	5.43	4989
J	2017	22	0.117	1.71	970
J	2017	23	0.171	2.43	2009
J	2017	24	0.161	5.13	4001
J	2017	28	0.164	1.83	1455
J	2017	29	0.160	2.78	2156
J	2017	30	0.144	1.80	1261
J	2018	1	0.240	22.00	25566
J	2018	2	0.181	21.88	19158
J	2018	3	0.212	17.36	17857
J	2018	22	0.157	29.70	22553
J	2018	23	0.197	33.44	31956
J	2018	24	0.195	30.86	29204
J	2018	28	0.201	21.00	20509
J	2018	29	0.194	21.00	19788
J	2018	30	0.230	18.22	20316
K	2017	4	0.107	2.50	1293
K	2017	5	0.095	2.38	1091
K	2017	6	0.110	2.86	1524
K	2017	13	0.122	3.83	2263
K	2017	14	0.103	6.00	3007
K	2017	15	0.071	10.63	3638
K	2017	25	0.082	13.00	5153
K	2017	26	0.114	8.78	4850
K	2017	27	0.094	4.86	2217
K	2018	4	0.136	29.20	19303
K	2018	5	0.136	24.89	16436
K	2018	6	0.105	28.75	14631
K	2018	13	0.126	31.71	19400
K	2018	14	0.148	25.33	18188
K	2018	15	0.113	23.54	12871
K	2018	25	0.202	13.75	13459
K	2018	26	0.154	17.78	13257
K	2018	27	0.115	15.60	8665

## 2.7. Juice composition

Sugar content and total acidity were measured in the juice of the same grapevines at harvest according to European official methods [15] (Table 12). Missing data in Table 12 are due to analyses not received at the time of writing the present paper.

**Table 11**

Powdery mildew and grey rot intensities attacks on bunches at different locations (placettes) in each studied plot and year of measurement.

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
A	2013	1	0.00	2.46
A	2013	1	0.00	6.33
A	2013	1	0.00	1.75
A	2013	1	0.00	0.41
A	2013	1	0.00	6.08
A	2013	2	0.00	0.20
A	2013	2	0.00	0.18
A	2013	2	0.00	0.12
A	2013	2	0.00	0.00
A	2013	2	0.00	1.43
A	2013	3	0.00	1.95
A	2013	3	0.00	0.24
A	2013	3	0.00	1.15
A	2013	3	0.00	0.00
A	2013	3	0.00	4.48
A	2013	4	0.00	0.76
A	2013	4	0.00	0.22
A	2013	4	0.00	2.68
A	2013	4	0.00	1.23
A	2013	4	0.00	1.43
A	2013	5	0.00	3.78
A	2013	5	0.00	0.94
A	2013	5	0.00	0.36
A	2013	5	0.00	5.47
A	2013	5	0.00	1.36
A	2013	6	0.00	0.03
A	2013	6	0.00	0.21
A	2013	6	0.00	6.38
A	2013	6	0.00	4.92
A	2013	6	0.00	0.06
A	2013	7	0.00	2.52
A	2013	7	0.00	0.00
A	2013	7	0.00	2.98
A	2013	7	0.00	2.24
A	2013	7	0.00	9.60
A	2013	8	0.00	21.01
A	2013	8	0.00	0.99
A	2013	8	0.00	1.88
A	2013	8	0.00	0.00
A	2013	8	0.00	0.01
A	2013	9	0.00	1.15
A	2013	9	0.00	0.65
A	2013	9	0.00	0.43
A	2013	9	0.00	1.16
A	2013	9	0.00	1.73
A	2014	1	0.00	0.48
A	2014	1	0.00	2.90
A	2014	1	0.00	1.94
A	2014	1	0.00	4.35
A	2014	1	0.00	2.42
A	2014	2	0.00	2.90
A	2014	2	0.00	1.94
A	2014	2	0.00	26.13
A	2014	2	0.00	3.39
A	2014	2	0.00	8.06
A	2014	3	0.00	17.42
A	2014	3	0.00	4.84
A	2014	3	0.00	5.81
A	2014	3	0.00	4.35
A	2014	3	0.00	8.23

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
A	2014	4	0.00	5.16
A	2014	4	0.00	5.32
A	2014	4	0.00	2.90
A	2014	4	0.06	0.97
A	2014	4	0.06	1.61
A	2014	5	0.00	1.94
A	2014	5	0.00	3.23
A	2014	5	0.00	6.45
A	2014	5	2.42	4.84
A	2014	5	0.00	5.16
A	2014	6	0.00	2.58
A	2014	6	6.45	0.65
A	2014	6	6.45	0.32
A	2014	6	0.00	1.29
A	2014	6	0.00	0.32
A	2014	7	0.00	4.35
A	2014	7	0.00	2.58
A	2014	7	0.00	3.87
A	2014	7	0.00	0.81
A	2014	7	0.00	1.77
A	2014	8	0.00	3.23
A	2014	8	0.00	4.03
A	2014	8	0.00	3.23
A	2014	8	0.00	2.58
A	2014	8	0.00	0.97
A	2014	9	0.00	3.87
A	2014	9	0.00	0.97
A	2014	9	0.00	1.29
A	2014	9	0.00	4.84
A	2014	9	0.00	6.29
A	2015	1	0.00	2.16
A	2015	1	0.00	0.62
A	2015	1	0.00	0.31
A	2015	1	0.00	0.06
A	2015	1	0.00	0.15
A	2015	2	0.00	2.78
A	2015	2	0.62	1.24
A	2015	2	0.00	0.62
A	2015	2	0.00	6.19
A	2015	2	0.00	0.93
A	2015	3	0.00	0.62
A	2015	3	1.86	0.46
A	2015	3	1.86	0.62
A	2015	3	0.00	0.62
A	2015	3	0.00	0.62
A	2015	4	0.00	0.93
A	2015	4	0.00	0.15
A	2015	4	0.00	3.09
A	2015	4	0.00	2.32
A	2015	4	0.00	0.00
A	2015	5	0.00	0.00
A	2015	5	0.00	0.00
A	2015	5	0.00	0.62
A	2015	5	0.00	1.86
A	2015	5	0.00	0.93
A	2015	6	0.00	0.46
A	2015	6	0.00	1.24
A	2015	6	0.00	0.46
A	2015	6	0.00	0.00
A	2015	6	0.00	1.55

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
A	2015	7	0.00	3.71
A	2015	7	0.00	3.71
A	2015	7	0.00	2.47
A	2015	7	0.00	1.86
A	2015	7	0.00	2.32
A	2015	8	0.00	0.62
A	2015	8	0.00	0.00
A	2015	8	0.00	0.46
A	2015	8	0.00	0.31
A	2015	8	0.00	0.93
A	2015	9	0.00	0.00
A	2015	9	0.00	1.24
A	2015	9	0.00	0.00
A	2015	9	0.00	3.71
A	2015	9	0.00	0.93
A	2016	1	0.00	1.63
A	2016	1	0.00	1.22
A	2016	1	0.00	10.61
A	2016	1	0.00	3.27
A	2016	1	0.00	2.86
A	2016	2	0.00	0.82
A	2016	2	0.00	2.04
A	2016	2	0.00	1.22
A	2016	2	0.00	2.86
A	2016	2	0.00	0.41
A	2016	3	0.00	3.06
A	2016	3	0.00	2.45
A	2016	3	0.00	1.63
A	2016	3	0.00	0.00
A	2016	3	0.00	0.00
A	2016	4	0.00	0.00
A	2016	4	0.00	0.00
A	2016	4	0.00	0.20
A	2016	4	0.00	1.02
A	2016	4	0.00	1.02
A	2016	5	0.00	0.49
A	2016	5	0.00	1.43
A	2016	5	0.00	0.41
A	2016	5	0.00	2.04
A	2016	5	0.00	0.61
A	2016	6	0.00	2.45
A	2016	6	0.00	1.63
A	2016	6	0.00	0.00
A	2016	6	0.00	0.00
A	2016	6	0.00	1.02
A	2016	7	0.00	0.00
A	2016	7	0.00	2.45
A	2016	7	0.00	1.43
A	2016	7	0.00	0.04
A	2016	7	0.00	3.27
A	2016	8	0.00	0.00
A	2016	8	0.00	0.08
A	2016	8	0.00	0.41
A	2016	8	0.00	0.00
A	2016	8	0.00	0.33
A	2016	9	0.00	0.41
A	2016	9	0.00	0.41
A	2016	9	0.00	0.00
A	2016	9	0.00	0.41
A	2016	9	0.00	1.22

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
A	2017	1	0.00	6.09
A	2017	1	0.00	1.30
A	2017	1	0.00	19.13
A	2017	1	0.00	8.26
A	2017	1	0.00	3.04
A	2017	2	0.00	7.39
A	2017	2	0.00	20.87
A	2017	2	0.00	8.70
A	2017	2	0.00	18.70
A	2017	2	0.00	11.74
A	2017	3	0.00	3.48
A	2017	3	0.00	12.83
A	2017	3	0.00	2.17
A	2017	3	0.00	6.13
A	2017	3	0.00	14.35
A	2017	4	0.00	5.22
A	2017	4	0.00	17.83
A	2017	4	0.00	15.22
A	2017	4	0.00	1.74
A	2017	4	0.00	8.70
A	2017	5	0.00	5.65
A	2017	5	0.00	20.43
A	2017	5	0.00	11.30
A	2017	5	0.00	6.52
A	2017	5	0.00	3.48
A	2017	6	0.00	6.52
A	2017	6	0.00	4.35
A	2017	6	0.00	12.17
A	2017	6	0.00	16.09
A	2017	6	0.00	15.22
A	2017	7	0.00	10.87
A	2017	7	0.00	19.57
A	2017	7	0.00	16.09
A	2017	7	0.00	11.30
A	2017	7	0.00	28.70
A	2017	8	0.00	17.83
A	2017	8	0.00	23.91
A	2017	8	0.00	11.96
A	2017	8	0.00	6.09
A	2017	8	0.00	8.70
A	2017	9	0.00	7.83
A	2017	9	0.00	17.61
A	2017	9	0.00	20.00
A	2017	9	0.00	2.61
A	2017	9	0.00	7.83
A	2018	1	0.00	0.56
A	2018	1	0.00	0.00
A	2018	1	0.00	0.84
A	2018	1	0.00	0.56
A	2018	1	0.00	1.96
A	2018	2	0.00	1.40
A	2018	2	0.00	0.00
A	2018	2	0.00	0.00
A	2018	2	0.00	0.00
A	2018	2	0.00	0.23
A	2018	3	0.00	0.28
A	2018	3	0.00	0.56
A	2018	3	0.00	0.00
A	2018	3	0.00	0.00
A	2018	3	0.00	0.56

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
A	2018	4	0.00	0.00
A	2018	4	0.00	0.00
A	2018	4	0.00	0.00
A	2018	4	0.00	0.05
A	2018	4	0.00	0.00
A	2018	5	0.00	0.05
A	2018	5	0.00	0.00
A	2018	5	0.00	0.00
A	2018	5	0.00	0.00
A	2018	5	0.00	1.75
A	2018	6	0.00	0.40
A	2018	6	0.00	0.00
A	2018	6	0.00	0.79
A	2018	6	0.00	0.40
A	2018	6	0.00	1.98
A	2018	7	0.00	0.14
A	2018	7	0.00	0.42
A	2018	7	0.00	0.14
A	2018	7	0.00	0.00
A	2018	7	0.00	0.14
A	2018	8	0.00	0.00
A	2018	8	0.00	0.00
A	2018	8	0.00	0.14
A	2018	8	0.00	0.42
A	2018	8	0.00	0.28
A	2018	9	0.00	0.14
A	2018	9	0.00	0.56
A	2018	9	0.00	0.28
A	2018	9	0.00	0.14
A	2018	9	0.00	0.70
B	2013	1	0.00	80.00
B	2013	1	0.00	70.00
B	2013	1	0.00	90.00
B	2013	1	0.00	5.00
B	2013	1	0.00	10.00
B	2013	1	0.00	20.00
B	2013	1	0.00	70.00
B	2013	1	0.00	0.00
B	2013	1	0.00	95.00
B	2013	1	0.00	50.00
B	2013	2	0.00	20.00
B	2013	2	0.00	0.00
B	2013	2	0.00	70.00
B	2013	2	0.00	65.00
B	2013	2	0.00	30.00
B	2013	2	0.00	50.00
B	2013	2	0.00	70.00
B	2013	2	0.00	30.00
B	2013	2	0.00	20.00
B	2013	2	0.00	40.00
B	2013	3	0.00	30.00
B	2013	3	0.00	35.00
B	2013	3	0.00	25.00
B	2013	3	0.00	40.00
B	2013	3	0.00	0.00
B	2013	3	0.00	45.00
B	2013	3	0.00	70.00
B	2013	3	0.00	40.00
B	2013	3	0.00	40.00
B	2013	3	0.00	40.00

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequance x intensity.bunch-1)	Grey rot intensity on bunches (frequance x intensity.bunch-1)
B	2013	4	1.61	65.00
B	2013	4	0.00	50.00
B	2013	4	0.00	60.00
B	2013	4	0.00	65.00
B	2013	4	0.00	75.00
B	2013	4	0.00	0.00
B	2013	4	0.00	50.00
B	2013	4	0.00	30.00
B	2013	4	0.00	75.00
B	2013	4	0.00	60.00
B	2013	5	0.00	80.00
B	2013	5	0.00	50.00
B	2013	5	0.00	30.00
B	2013	5	0.00	40.00
B	2013	5	0.00	70.00
B	2013	5	0.00	50.00
B	2013	5	0.00	60.00
B	2013	5	0.00	70.00
B	2013	5	0.00	30.00
B	2013	5	0.00	50.00
B	2014	2	0.00	10.00
B	2014	2	0.00	54.86
B	2014	2	0.00	0.00
B	2014	2	0.00	23.14
B	2014	2	0.00	14.86
B	2014	2	0.00	20.00
B	2014	2	0.00	9.43
B	2014	2	0.00	25.71
B	2014	2	0.00	17.14
B	2014	2	0.00	11.14
B	2014	3	0.00	17.14
B	2014	3	0.00	9.43
B	2014	3	0.00	24.00
B	2014	3	0.00	23.57
B	2014	3	0.00	8.80
B	2014	3	0.00	11.57
B	2014	3	0.00	45.94
B	2014	3	0.00	51.43
B	2014	3	0.00	11.43
B	2014	3	0.00	28.57
B	2014	4	0.00	5.14
B	2014	4	0.00	19.00
B	2014	4	0.00	3.43
B	2014	4	0.00	6.00
B	2014	4	0.00	2.57
B	2014	4	0.00	0.00
B	2014	4	0.00	11.00
B	2014	4	0.00	21.00
B	2014	4	0.00	7.54
B	2014	4	0.00	4.29
B	2014	5	0.00	5.00
B	2014	5	0.00	11.89
B	2014	5	0.00	10.29
B	2014	5	0.00	11.43
B	2014	5	0.00	0.14
B	2014	5	0.00	0.00
B	2014	5	0.00	4.71
B	2014	5	0.00	9.43
B	2014	5	0.00	3.40
B	2014	5	0.00	8.00

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
B	2014	6	0.00	1.20
B	2014	6	0.00	5.71
B	2014	6	0.00	2.74
B	2014	6	0.00	4.57
B	2014	6	0.00	2.29
B	2014	6	0.00	0.80
B	2014	6	0.00	5.71
B	2014	6	0.00	7.14
B	2014	6	0.00	1.60
B	2014	6	0.00	5.03
B	2015	1	0.40	0.00
B	2015	1	0.46	0.00
B	2015	1	0.25	0.00
B	2015	1	0.50	0.00
B	2015	1	1.35	0.30
B	2015	1	1.00	0.45
B	2015	1	0.70	0.00
B	2015	2	1.50	0.00
B	2015	2	0.50	0.00
B	2015	2	1.20	0.00
B	2015	2	0.80	0.00
B	2015	2	0.60	0.00
B	2015	2	0.10	0.00
B	2015	2	0.40	0.00
B	2015	2	0.30	0.00
B	2015	2	0.50	0.00
B	2015	3	0.50	0.00
B	2015	3	0.75	0.00
B	2015	3	1.05	0.00
B	2015	3	0.30	0.00
B	2015	3	0.40	0.00
B	2015	3	0.08	0.00
B	2015	3	0.70	0.00
B	2015	3	0.50	0.00
B	2015	3	0.40	0.20
B	2015	3	0.20	0.00
B	2015	4	0.40	0.00
B	2015	4	0.60	0.00
B	2015	4	0.25	0.00
B	2015	4	0.40	0.00
B	2015	4	0.50	0.00
B	2015	4	0.15	0.00
B	2015	5	1.20	0.00
B	2015	5	1.20	0.00
B	2015	5	1.50	0.00
B	2015	5	1.75	0.00
B	2015	5	1.05	0.00
B	2015	5	15.00	0.00
B	2015	5	0.60	0.00
B	2015	5	12.00	0.00
B	2015	5	40.00	0.00
B	2016	1	0.28	3.19
B	2016	1	0.43	0.32
B	2016	1	15.96	1.24
B	2016	1	0.00	0.00
B	2016	1	0.00	0.32
B	2016	1	0.00	0.57
B	2016	1	0.00	0.35
B	2016	1	0.00	0.99
B	2016	1	0.00	0.00

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
B	2016	1	0.00	0.89
B	2016	2	0.00	0.00
B	2016	2	0.00	6.38
B	2016	2	0.00	0.00
B	2016	2	0.00	0.00
B	2016	2	0.00	0.00
B	2016	2	0.00	1.99
B	2016	2	0.00	0.00
B	2016	2	0.00	1.77
B	2016	2	0.00	19.15
B	2016	2	0.00	0.00
B	2016	3	0.00	15.60
B	2016	3	0.00	0.00
B	2016	3	0.00	17.02
B	2016	3	0.00	0.00
B	2016	3	0.00	0.00
B	2016	3	0.00	0.00
B	2016	3	0.00	77.13
B	2016	3	0.00	14.18
B	2016	3	0.00	0.00
B	2016	3	0.00	11.52
B	2016	4	0.00	0.00
B	2016	4	0.00	0.00
B	2016	4	0.00	1.77
B	2016	4	0.00	0.00
B	2016	4	0.00	2.84
B	2016	4	0.21	2.55
B	2016	4	0.00	0.00
B	2016	4	0.53	3.72
B	2016	4	0.00	0.64
B	2016	4	0.53	6.24
B	2016	5	0.00	0.00
B	2016	5	0.00	35.46
B	2016	5	0.00	4.43
B	2016	5	0.00	4.26
B	2016	5	0.00	14.89
B	2016	5	0.00	2.48
B	2016	5	0.00	9.57
B	2016	5	0.00	0.00
B	2016	5	0.00	0.00
B	2016	5	0.00	9.93
B	2017	1	0.00	0.00
B	2017	1	0.00	28.72
B	2017	1	0.00	0.00
B	2017	1	0.00	7.45
B	2017	1	0.00	0.00
B	2017	1	0.00	3.90
B	2017	1	0.00	3.55
B	2017	1	0.00	0.00
B	2017	1	0.00	0.00
B	2017	1	0.00	5.85
B	2017	2	0.00	11.35
B	2017	2	0.00	0.00
B	2017	2	0.00	12.77
B	2017	2	0.00	7.98
B	2017	2	0.00	0.00
B	2017	2	0.00	2.13
B	2017	2	0.00	12.77
B	2017	2	0.00	16.13
B	2017	2	0.00	0.89

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
B	2017	2	0.00	0.00
B	2017	3	0.00	0.00
B	2017	3	0.00	0.00
B	2017	3	0.00	0.00
B	2017	3	0.00	0.00
B	2017	3	0.00	0.00
B	2017	3	0.00	25.53
B	2017	3	0.00	0.00
B	2017	3	0.00	1.60
B	2017	3	0.00	9.93
B	2017	3	0.00	0.35
B	2017	4	0.00	1.60
B	2017	4	0.00	24.82
B	2017	4	0.00	9.75
B	2017	4	0.00	2.84
B	2017	4	0.00	0.00
B	2017	4	0.00	0.00
B	2017	4	0.00	14.89
B	2017	4	0.00	11.35
B	2017	4	0.00	0.71
B	2017	4	0.00	0.00
B	2017	5	0.00	4.26
B	2017	5	0.00	2.27
B	2017	5	0.00	6.03
B	2017	5	0.00	0.00
B	2017	5	0.21	4.96
B	2017	5	0.00	3.55
B	2017	5	0.00	3.23
B	2017	5	0.00	2.84
B	2017	5	0.00	9.75
B	2017	5	0.00	2.73
B	2018	1	0.00	30.00
B	2018	1	0.00	30.00
B	2018	1	0.00	8.00
B	2018	1	0.00	12.00
B	2018	1	0.00	1.50
B	2018	1	0.00	8.50
B	2018	1	0.00	0.00
B	2018	1	0.00	0.00
B	2018	1	0.00	30.00
B	2018	1	0.00	0.00
B	2018	2	20.00	12.00
B	2018	2	0.00	0.00
B	2018	2	0.00	50.00
B	2018	2	0.00	45.00
B	2018	2	0.00	0.00
B	2018	2	0.00	12.00
B	2018	2	0.00	50.00
B	2018	2	0.00	5.60
B	2018	2	0.00	9.00
B	2018	2	0.00	40.00
B	2018	3	0.00	0.00
B	2018	3	0.00	0.00
B	2018	3	0.00	10.00
B	2018	3	0.00	0.00
B	2018	3	0.00	0.00
B	2018	3	0.00	60.00
B	2018	3	0.00	30.00
B	2018	3	0.00	19.00
B	2018	3	0.00	0.20

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequene x intensity.bunch-1)	Grey rot intensity on bunches (frequene x intensity.bunch-1)
B	2018	3	0.00	1.50
B	2018	4	0.00	0.00
B	2018	4	0.00	40.00
B	2018	4	0.00	0.00
B	2018	4	0.00	8.00
B	2018	4	0.00	40.00
B	2018	4	0.00	0.00
B	2018	4	0.00	7.00
B	2018	4	0.00	7.20
B	2018	4	0.00	14.40
B	2018	4	0.00	0.00
B	2018	5	0.00	4.00
B	2018	5	30.00	4.50
B	2018	5	0.00	28.50
B	2018	5	0.00	0.00
B	2018	5	0.00	4.50
B	2018	5	0.00	28.50
B	2018	5	0.00	23.75
B	2018	5	0.00	0.25
B	2018	5	0.00	2.10
B	2018	5	0.00	9.00
C	2013	1	0.00	2.68
C	2013	1	0.00	0.05
C	2013	1	0.00	0.45
C	2013	1	0.00	1.54
C	2013	1	0.00	0.42
C	2013	2	0.00	4.13
C	2013	2	0.00	0.08
C	2013	2	0.00	0.08
C	2013	2	0.00	0.08
C	2013	2	0.00	2.68
C	2013	3	0.00	0.07
C	2013	3	0.00	0.14
C	2013	3	0.00	0.00
C	2013	3	0.00	3.44
C	2013	3	0.00	0.06
C	2013	4	0.00	2.40
C	2013	4	0.00	0.00
C	2013	4	0.00	3.37
C	2013	4	0.00	0.27
C	2013	4	0.00	0.36
C	2013	5	0.00	0.09
C	2013	5	0.00	0.17
C	2013	5	0.00	2.31
C	2013	5	0.00	1.84
C	2013	5	0.00	0.23
C	2013	6	0.00	0.46
C	2013	6	0.00	0.03
C	2013	6	0.00	0.36
C	2013	6	0.00	0.22
C	2013	6	0.00	0.14
C	2013	7	0.00	0.34
C	2013	7	0.00	0.00
C	2013	7	0.00	0.00
C	2013	7	0.00	0.31
C	2013	7	0.00	2.72
C	2013	8	0.00	2.59
C	2013	8	0.00	0.01
C	2013	8	0.00	0.98
C	2013	8	0.00	1.29

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
C	2013	8	0.00	0.42
C	2013	9	0.00	0.18
C	2013	9	0.00	0.00
C	2013	9	0.00	0.00
C	2013	9	0.00	1.04
C	2013	9	0.00	0.00
C	2014	1	0.00	0.00
C	2014	1	0.00	2.90
C	2014	1	1.94	2.58
C	2014	1	0.00	0.32
C	2014	1	0.00	0.65
C	2014	2	0.00	2.90
C	2014	2	0.00	0.00
C	2014	2	2.58	0.48
C	2014	2	5.81	1.29
C	2014	2	0.65	0.81
C	2014	3	0.00	0.00
C	2014	3	5.16	0.97
C	2014	3	0.16	0.97
C	2014	3	5.16	1.29
C	2014	3	1.29	0.32
C	2014	4	0.00	1.61
C	2014	4	0.16	1.61
C	2014	4	0.65	2.58
C	2014	4	0.00	1.13
C	2014	4	1.94	2.26
C	2014	5	0.32	0.48
C	2014	5	1.29	0.32
C	2014	5	0.32	0.32
C	2014	5	1.29	1.61
C	2014	5	0.00	7.26
C	2014	6	0.00	1.77
C	2014	6	0.00	0.16
C	2014	6	0.00	0.29
C	2014	6	0.00	0.32
C	2014	6	0.00	0.97
C	2014	7	0.00	0.65
C	2014	7	0.00	0.06
C	2014	7	3.87	2.90
C	2014	7	0.00	0.65
C	2014	7	0.00	0.97
C	2014	8	7.26	0.00
C	2014	8	3.23	0.00
C	2014	8	2.90	0.16
C	2014	8	0.00	0.48
C	2014	8	0.00	1.94
C	2014	9	0.65	0.32
C	2014	9	0.81	0.00
C	2014	9	0.00	0.06
C	2014	9	3.39	0.00
C	2014	9	3.87	1.13
C	2015	1	0.00	0.00
C	2015	1	0.00	1.07
C	2015	1	0.00	0.00
C	2015	1	0.00	0.00
C	2015	1	0.00	0.00
C	2015	2	0.36	0.36
C	2015	2	0.00	0.36
C	2015	2	0.00	0.18
C	2015	2	0.00	0.00

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequance x intensity.bunch-1)	Grey rot intensity on bunches (frequance x intensity.bunch-1)
C	2015	2	0.00	0.00
C	2015	3	0.00	0.00
C	2015	3	0.00	0.36
C	2015	3	0.00	4.29
C	2015	3	0.00	0.71
C	2015	3	0.00	0.00
C	2015	4	0.00	1.07
C	2015	4	0.00	0.00
C	2015	4	0.00	1.07
C	2015	4	0.00	0.00
C	2015	4	0.00	0.89
C	2015	5	0.00	11.43
C	2015	5	0.00	0.54
C	2015	5	0.00	0.54
C	2015	5	0.00	1.43
C	2015	5	3.57	0.71
C	2015	6	0.00	1.07
C	2015	6	0.00	0.54
C	2015	6	0.00	0.00
C	2015	6	0.00	0.71
C	2015	6	0.00	0.00
C	2015	7	0.00	0.18
C	2015	7	0.00	0.71
C	2015	7	0.00	0.71
C	2015	7	0.00	1.43
C	2015	7	0.00	0.00
C	2015	8	0.00	0.00
C	2015	8	0.00	0.54
C	2015	8	0.00	0.00
C	2015	8	0.00	0.00
C	2015	8	0.00	0.00
C	2015	9	0.00	0.18
C	2015	9	0.00	0.36
C	2015	9	0.00	0.00
C	2015	9	0.00	0.00
C	2015	9	0.00	0.00
C	2016	1	0.00	0.20
C	2016	1	0.04	0.00
C	2016	1	0.00	0.20
C	2016	1	0.00	0.00
C	2016	1	0.00	0.82
C	2016	2	0.00	0.41
C	2016	2	0.00	0.00
C	2016	2	0.00	0.00
C	2016	2	0.00	0.08
C	2016	2	0.00	0.20
C	2016	3	0.00	0.00
C	2016	3	0.00	0.04
C	2016	3	0.00	2.04
C	2016	3	0.00	2.45
C	2016	3	0.00	0.00
C	2016	4	0.00	0.00
C	2016	4	0.00	0.41
C	2016	4	0.00	0.00
C	2016	4	0.00	0.00
C	2016	4	0.00	0.00
C	2016	5	0.00	0.00
C	2016	5	0.00	0.00
C	2016	5	0.00	0.22
C	2016	5	0.00	0.45

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
C	2016	5	0.00	0.00
C	2016	6	0.00	0.00
C	2016	6	0.00	0.00
C	2016	6	0.00	0.00
C	2016	6	0.00	0.45
C	2016	6	0.00	0.00
C	2016	7	0.00	0.00
C	2016	7	0.00	0.00
C	2016	7	0.00	0.45
C	2016	7	0.00	0.18
C	2016	7	0.00	0.45
C	2016	8	0.00	0.04
C	2016	8	0.00	0.00
C	2016	8	0.00	0.00
C	2016	8	0.00	0.00
C	2016	8	0.00	0.00
C	2016	9	0.00	0.00
C	2016	9	0.00	0.00
C	2016	9	0.00	0.45
C	2016	9	0.00	0.00
C	2016	9	0.00	0.45
C	2017	1	0.00	14.47
C	2017	1	0.00	5.79
C	2017	1	0.00	5.26
C	2017	1	0.00	6.84
C	2017	1	0.00	6.84
C	2017	2	0.00	6.32
C	2017	2	0.00	6.32
C	2017	2	0.00	8.42
C	2017	2	0.00	12.63
C	2017	2	0.00	8.42
C	2017	3	0.00	6.58
C	2017	3	0.00	5.26
C	2017	3	0.00	7.37
C	2017	3	0.00	7.37
C	2017	3	0.00	13.16
C	2017	4	0.00	19.21
C	2017	4	0.00	1.58
C	2017	4	0.00	9.47
C	2017	4	0.00	3.16
C	2017	4	0.00	7.37
C	2017	5	0.00	7.89
C	2017	5	0.00	2.11
C	2017	5	0.00	6.32
C	2017	5	0.00	14.74
C	2017	5	0.00	5.79
C	2017	6	0.00	7.37
C	2017	6	0.00	14.74
C	2017	6	0.00	4.21
C	2017	6	0.00	13.68
C	2017	6	0.00	5.26
C	2017	7	0.00	0.00
C	2017	7	0.00	0.53
C	2017	7	0.00	1.05
C	2017	7	0.00	3.68
C	2017	7	0.00	9.47
C	2017	8	0.00	3.68
C	2017	8	0.00	11.05
C	2017	8	0.00	0.00
C	2017	8	0.00	1.05

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequance x intensity.bunch-1)	Grey rot intensity on bunches (frequance x intensity.bunch-1)
C	2017	8	0.00	7.37
C	2017	9	0.00	4.21
C	2017	9	0.00	4.21
C	2017	9	0.00	2.63
C	2017	9	0.00	10.53
C	2017	9	0.00	2.89
C	2018	1	0.00	0.00
C	2018	1	0.00	0.00
C	2018	1	0.00	0.18
C	2018	1	0.00	0.36
C	2018	1	0.00	0.18
C	2018	2	0.00	2.30
C	2018	2	0.00	1.91
C	2018	2	0.00	0.38
C	2018	2	0.00	1.15
C	2018	2	0.00	0.00
C	2018	3	0.00	0.00
C	2018	3	0.00	0.36
C	2018	3	0.00	0.00
C	2018	3	0.00	0.18
C	2018	3	0.00	0.00
C	2018	4	0.00	0.00
C	2018	4	0.00	0.71
C	2018	4	0.00	0.36
C	2018	4	0.00	0.18
C	2018	4	0.00	0.00
C	2018	5	0.00	0.00
C	2018	5	0.00	0.54
C	2018	5	0.00	0.00
C	2018	5	0.00	0.00
C	2018	5	0.00	0.18
C	2018	6	0.00	0.36
C	2018	6	0.00	0.00
C	2018	6	0.00	0.00
C	2018	6	0.00	0.18
C	2018	6	0.00	0.00
C	2018	7	0.00	0.13
C	2018	7	0.00	0.13
C	2018	7	0.00	0.64
C	2018	7	0.00	0.26
C	2018	7	0.00	0.54
C	2018	8	0.00	0.92
C	2018	8	0.00	0.00
C	2018	8	0.00	0.00
C	2018	8	0.00	0.00
C	2018	8	0.00	0.31
C	2018	9	0.00	0.00
C	2018	9	0.00	0.36
C	2018	9	0.00	0.54
C	2018	9	0.00	0.00
C	2018	9	0.00	0.18
D	2013	1	0.00	0.19
D	2013	1	0.00	0.03
D	2013	1	0.00	0.36
D	2013	1	0.00	0.00
D	2013	1	0.00	2.97
D	2013	2	0.00	0.06
D	2013	2	0.00	0.00
D	2013	2	0.00	0.01
D	2013	2	0.00	1.06

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
D	2013	2	0.00	0.02
D	2013	3	0.00	0.66
D	2013	3	0.00	0.15
D	2013	3	0.00	0.25
D	2013	3	0.00	0.15
D	2013	3	0.00	0.05
D	2013	4	0.00	0.04
D	2013	4	0.00	0.05
D	2013	4	0.00	0.02
D	2013	4	0.00	0.31
D	2013	4	0.00	0.32
D	2013	5	0.00	0.03
D	2013	5	0.00	0.00
D	2013	5	0.00	0.18
D	2013	5	0.00	0.52
D	2013	5	0.00	2.39
D	2013	6	0.00	0.56
D	2013	6	0.00	0.32
D	2013	6	0.00	0.06
D	2013	6	0.00	0.04
D	2013	6	0.00	2.10
D	2013	7	0.00	0.00
D	2013	7	0.00	0.03
D	2013	7	0.00	0.00
D	2013	7	0.00	0.00
D	2013	7	0.00	0.73
D	2013	8	0.00	1.49
D	2013	8	0.00	0.07
D	2013	8	0.00	0.33
D	2013	8	0.00	0.31
D	2013	8	0.00	3.45
D	2013	9	0.00	0.10
D	2013	9	0.00	0.25
D	2013	9	0.00	1.00
D	2013	9	0.00	0.01
D	2013	9	0.00	0.47
D	2014	1	0.00	1.45
D	2014	1	0.00	0.06
D	2014	1	2.42	0.81
D	2014	1	0.00	0.97
D	2014	1	0.00	0.48
D	2014	2	7.26	1.29
D	2014	2	6.45	2.26
D	2014	2	0.00	0.65
D	2014	2	0.97	1.94
D	2014	2	0.00	1.45
D	2014	3	0.00	5.32
D	2014	3	0.00	0.97
D	2014	3	0.00	0.16
D	2014	3	1.61	0.00
D	2014	3	0.00	0.97
D	2014	4	0.00	0.00
D	2014	4	0.97	1.94
D	2014	4	0.00	2.90
D	2014	4	0.65	1.29
D	2014	4	0.00	0.32
D	2014	5	0.97	0.32
D	2014	5	0.00	0.97
D	2014	5	1.61	1.61
D	2014	5	0.97	0.65

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequance x intensity.bunch-1)	Grey rot intensity on bunches (frequance x intensity.bunch-1)
D	2014	5	2.58	0.00
D	2014	6	0.48	1.61
D	2014	6	2.58	0.97
D	2014	6	0.00	0.48
D	2014	6	0.32	0.65
D	2014	6	0.00	0.00
D	2014	7	0.00	0.00
D	2014	7	0.00	0.00
D	2014	7	0.00	1.94
D	2014	7	0.00	2.42
D	2014	7	0.00	2.26
D	2014	8	0.16	0.65
D	2014	8	0.16	0.65
D	2014	8	0.16	0.65
D	2014	8	0.32	0.48
D	2014	8	0.00	2.58
D	2014	9	0.00	2.58
D	2014	9	0.32	0.00
D	2014	9	0.00	0.32
D	2014	9	0.00	0.32
D	2015	1	0.00	0.11
D	2015	1	0.00	0.00
D	2015	1	0.00	0.04
D	2015	1	0.00	0.00
D	2015	1	0.00	0.00
D	2015	2	0.00	0.22
D	2015	2	0.00	0.00
D	2015	2	0.00	0.00
D	2015	2	0.00	0.00
D	2015	2	0.00	0.45
D	2015	3	0.00	0.00
D	2015	3	0.00	0.00
D	2015	3	0.00	0.00
D	2015	3	0.00	0.00
D	2015	3	0.00	0.00
D	2015	4	0.00	0.04
D	2015	4	0.00	0.00
D	2015	4	0.00	0.00
D	2015	4	0.00	0.11
D	2015	4	0.00	0.00
D	2015	5	0.00	0.00
D	2015	5	0.00	0.00
D	2015	5	0.00	0.00
D	2015	5	0.00	0.22
D	2015	5	0.00	0.00
D	2015	6	0.00	0.00
D	2015	6	0.00	0.11
D	2015	6	0.00	0.00
D	2015	6	0.00	0.11
D	2015	6	0.00	0.00
D	2015	7	0.00	0.00
D	2015	7	0.00	0.22
D	2015	7	0.00	1.12
D	2015	7	0.00	0.13
D	2015	7	0.00	0.45
D	2015	8	0.00	0.00
D	2015	8	0.00	0.22
D	2015	8	0.00	0.00
D	2015	8	0.00	0.45
D	2015	8	0.00	0.67

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
D	2015	9	0.00	0.04
D	2015	9	0.00	0.22
D	2015	9	0.00	0.22
D	2015	9	0.00	0.45
D	2015	9	0.00	0.34
D	2016	1	0.00	4.12
D	2016	1	0.00	0.00
D	2016	1	0.00	0.05
D	2016	1	0.00	0.09
D	2016	1	0.00	0.92
D	2016	2	0.00	0.92
D	2016	2	0.00	0.00
D	2016	2	0.00	0.00
D	2016	2	0.00	0.00
D	2016	2	0.00	0.00
D	2016	3	0.00	0.69
D	2016	3	0.00	0.00
D	2016	3	0.00	0.00
D	2016	3	0.00	0.00
D	2016	3	0.00	0.00
D	2016	4	0.00	0.46
D	2016	4	0.00	0.23
D	2016	4	0.00	0.46
D	2016	4	0.00	1.83
D	2016	4	0.00	0.46
D	2016	5	0.00	0.00
D	2016	5	0.00	0.23
D	2016	5	0.00	0.00
D	2016	5	0.00	0.00
D	2016	5	0.00	0.46
D	2016	6	0.00	0.00
D	2016	6	0.00	0.00
D	2016	6	0.00	0.92
D	2016	6	0.00	0.00
D	2016	6	0.00	0.00
D	2016	7	0.00	0.00
D	2016	7	0.00	6.18
D	2016	7	0.00	2.29
D	2016	7	0.00	1.37
D	2016	7	0.00	0.00
D	2016	8	0.00	0.05
D	2016	8	0.00	0.46
D	2016	8	0.00	1.15
D	2016	8	0.00	0.00
D	2016	8	0.00	0.92
D	2016	9	0.00	0.69
D	2016	9	0.00	3.66
D	2016	9	0.00	0.00
D	2016	9	0.00	0.46
D	2016	9	0.00	0.92
D	2017	1	0.00	7.78
D	2017	1	0.00	0.00
D	2017	1	0.00	2.50
D	2017	1	0.00	6.67
D	2017	1	0.00	9.17
D	2017	2	0.00	12.22
D	2017	2	0.00	4.44
D	2017	2	0.00	7.78
D	2017	2	0.00	16.67
D	2017	2	0.00	12.22

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequance x intensity.bunch-1)	Grey rot intensity on bunches (frequance x intensity.bunch-1)
D	2017	3	0.00	1.11
D	2017	3	0.00	6.67
D	2017	3	0.00	9.44
D	2017	3	0.00	17.78
D	2017	3	0.00	0.00
D	2017	4	0.00	7.22
D	2017	4	0.00	2.78
D	2017	4	0.00	8.33
D	2017	4	0.00	8.89
D	2017	4	0.00	5.00
D	2017	5	0.00	8.33
D	2017	5	0.00	13.33
D	2017	5	0.00	10.56
D	2017	5	0.00	18.89
D	2017	5	0.00	12.22
D	2017	6	0.00	10.00
D	2017	6	0.00	8.89
D	2017	6	0.00	8.89
D	2017	6	0.00	8.33
D	2017	6	0.00	11.67
D	2017	7	0.00	5.00
D	2017	7	0.00	3.89
D	2017	7	0.00	5.56
D	2017	7	0.00	12.78
D	2017	7	0.00	5.56
D	2017	8	0.00	5.56
D	2017	8	0.00	13.33
D	2017	8	0.00	3.33
D	2017	8	0.00	1.11
D	2017	8	0.00	8.33
D	2017	9	0.00	5.00
D	2017	9	0.00	7.78
D	2017	9	0.00	11.11
D	2017	9	0.00	8.33
D	2017	9	0.00	5.56
D	2018	1	0.00	0.55
D	2018	1	0.00	0.37
D	2018	1	0.00	0.18
D	2018	1	0.00	0.37
D	2018	1	0.00	0.18
D	2018	2	0.00	0.37
D	2018	2	0.00	0.37
D	2018	2	0.00	0.18
D	2018	2	0.00	0.00
D	2018	2	0.00	0.00
D	2018	3	0.00	0.74
D	2018	3	0.00	0.18
D	2018	3	0.00	0.18
D	2018	3	0.00	1.32
D	2018	3	0.00	0.79
D	2018	4	0.00	0.26
D	2018	4	0.00	0.39
D	2018	4	0.00	0.26
D	2018	4	0.00	0.26
D	2018	4	0.00	0.13
D	2018	5	0.00	0.39
D	2018	5	0.00	0.13
D	2018	5	0.00	0.00
D	2018	5	0.00	0.18
D	2018	5	0.00	0.37

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
E	2017	36	0.00	13.04
E	2017	36	0.00	0.00
E	2017	36	0.00	4.35
E	2017	36		0.00
E	2017	36	0.00	26.09
E	2018	7	0.00	5.00
E	2018	7	0.00	2.00
E	2018	7	0.00	0.50
E	2018	7	0.00	0.10
E	2018	7	0.00	0.05
E	2018	7	0.00	2.50
E	2018	7	0.00	7.50
E	2018	7	0.00	1.80
E	2018	7	0.00	24.00
E	2018	7	0.00	0.50
E	2018	8	0.00	0.03
E	2018	8	0.00	0.10
E	2018	8	0.00	0.90
E	2018	8		
E	2018	8	0.00	4.00
E	2018	8	0.00	0.38
E	2018	8	0.00	0.00
E	2018	8	0.00	0.80
E	2018	8	0.00	0.05
E	2018	8	0.00	4.00
E	2018	9	0.00	0.02
E	2018	9	0.00	0.02
E	2018	9	0.00	0.80
E	2018	9	0.00	0.01
E	2018	9	0.00	0.40
E	2018	9	0.00	0.00
E	2018	9	0.00	0.01
E	2018	9	0.00	0.01
E	2018	9	0.00	0.05
E	2018	9	0.00	2.00
E	2018	9	0.00	1.50
E	2018	9	0.00	2.00
E	2018	9	0.00	0.03
E	2018	9	0.00	0.15
E	2018	16	0.00	0.20
E	2018	16		
E	2018	16	0.00	0.80
E	2018	16	0.00	0.09
E	2018	16	0.00	0.60
E	2018	16	0.00	4.00
E	2018	16	0.00	3.00
E	2018	16	0.00	17.50
E	2018	16	0.00	0.40
E	2018	16	0.00	0.60
E	2018	17	0.00	0.60
E	2018	17	0.00	7.00
E	2018	17		
E	2018	17	0.00	6.00
E	2018	17	0.00	0.80
E	2018	17	0.00	0.06
E	2018	17	0.00	4.00
E	2018	17	0.00	1.50
E	2018	17	0.00	2.40
E	2018	17	0.00	0.25

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequance x intensity.bunch-1)	Grey rot intensity on bunches (frequance x intensity.bunch-1)
F	2017	32	0.00	0.00
F	2017	32	0.00	0.00
F	2017	32	0.00	8.00
F	2017	32	0.00	8.00
F	2017	32	0.00	4.00
F	2017	32	0.00	0.00
F	2017	32	0.00	5.52
F	2017	32	0.00	4.00
F	2017	32	0.00	1.60
F	2017	33	0.00	0.00
F	2017	33	0.00	0.00
F	2017	33	0.00	0.00
F	2017	33	0.00	2.40
F	2017	33	0.00	0.00
F	2017	33	0.00	0.80
F	2017	33	0.00	0.32
F	2017	33	0.00	0.00
F	2017	33	0.00	1.60
F	2017	33	0.00	0.24
F	2018	10		
F	2018	10	0.00	0.06
F	2018	10	0.00	1.80
F	2018	10	0.00	1.80
F	2018	10	0.00	3.50
F	2018	10	0.00	0.10
F	2018	10	0.00	0.20
F	2018	10	0.00	0.10
F	2018	10	0.00	0.15
F	2018	10		
F	2018	10		
F	2018	11	0.00	0.30
F	2018	11	0.00	0.15
F	2018	11	0.00	1.20
F	2018	11	0.00	0.60
F	2018	11	0.00	6.00
F	2018	11	0.00	1.80
F	2018	11	0.00	0.15
F	2018	11	0.00	3.50
F	2018	11	0.00	0.10
F	2018	12	0.00	0.06
F	2018	12	0.00	1.00
F	2018	12	0.00	0.40
F	2018	12	0.00	1.40
F	2018	12	0.00	1.20
F	2018	12	0.00	0.50
F	2018	12	0.00	0.50
F	2018	12	0.00	0.60
F	2018	12	0.00	0.20
F	2018	12	0.00	4.00
F	2018	19	0.00	1.20
F	2018	19	0.00	0.04
F	2018	19	0.00	0.35
F	2018	19	0.00	0.00
F	2018	19	0.00	0.50
F	2018	19	0.00	0.60
F	2018	19	0.00	1.20
F	2018	19	0.00	4.00
F	2018	19	0.00	0.50
F	2018	19	0.00	2.50

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequance x intensity.bunch-1)	Grey rot intensity on bunches (frequance x intensity.bunch-1)
G	2013	2	0.00	60.00
G	2013	2	0.00	10.00
G	2013	2	0.00	60.00
G	2013	2	0.00	60.00
G	2013	2	0.00	70.00
G	2013	2	0.00	10.00
G	2013	2	0.00	60.00
G	2013	2	0.00	50.00
G	2013	2	0.00	0.00
G	2013	2	0.00	80.00
G	2013	3	0.00	50.00
G	2013	3	0.00	50.00
G	2013	3	0.00	10.00
G	2013	3	0.00	50.00
G	2013	3	0.00	15.00
G	2013	3	0.00	30.00
G	2013	3	0.00	30.00
G	2013	3	0.00	40.00
G	2013	3	0.00	40.00
G	2013	3	0.00	5.00
G	2013	4	0.00	20.00
G	2013	4	0.00	5.00
G	2013	4	0.00	20.00
G	2013	4	0.00	10.00
G	2013	4	0.00	10.00
G	2013	4	0.00	10.00
G	2013	4	0.00	30.00
G	2013	4	0.00	20.00
G	2013	4	0.00	35.00
G	2013	4	0.00	20.00
G	2013	5	0.00	30.00
G	2013	5	0.00	50.00
G	2013	5	0.00	80.00
G	2013	5	0.00	70.00
G	2013	5	0.00	40.00
G	2013	5	0.00	50.00
G	2013	5	0.00	50.00
G	2013	5	0.00	60.00
G	2013	5	0.00	70.00
G	2013	5	0.00	50.00
G	2013	5	0.00	30.00
G	2014	2	0.00	3.00
G	2014	2	0.00	3.60
G	2014	2	0.00	4.29
G	2014	2	0.00	7.71
G	2014	2	0.00	10.71
G	2014	2	0.00	8.14
G	2014	2	0.00	0.00
G	2014	2	0.00	9.71
G	2014	2	0.00	12.57
G	2014	2	0.00	0.00
G	2014	3	0.00	17.00
G	2014	3	0.00	0.00
G	2014	3	0.00	32.14
G	2014	3	0.00	13.71
G	2014	3	0.00	9.71
G	2014	3	0.00	13.11
G	2014	3	0.00	13.71
G	2014	3	0.00	0.00
G	2014	3	0.00	6.86
G	2014	3	0.00	13.57

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequene x intensity.bunch-1)	Grey rot intensity on bunches (frequene x intensity.bunch-1)
G	2014	4	0.00	11.57
G	2014	4	0.00	9.26
G	2014	4	0.00	3.43
G	2014	4	0.00	7.14
G	2014	4	0.00	8.57
G	2014	4	0.00	0.57
G	2014	4	0.00	20.57
G	2014	4	0.00	18.29
G	2014	4	0.00	26.43
G	2014	4	0.00	2.00
G	2014	5	0.00	9.43
G	2014	5	0.00	3.43
G	2014	5	0.00	4.83
G	2014	5	0.00	2.86
G	2014	5	0.00	0.23
G	2014	5	0.00	0.71
G	2014	5	0.00	1.40
G	2014	5	0.00	4.46
G	2014	5	0.00	5.57
G	2014	5	0.00	4.29
G	2014	6	0.00	4.29
G	2014	6	0.00	6.29
G	2014	6	0.00	6.43
G	2014	6	0.00	15.00
G	2014	6	0.00	2.00
G	2014	6	0.00	12.57
G	2014	6	0.00	8.14
G	2014	6	0.00	3.00
G	2014	6	0.00	8.57
G	2014	6	0.00	0.71
G	2015	1	1.50	0.00
G	2015	1	3.20	0.00
G	2015	1	3.20	0.00
G	2015	1	1.20	0.00
G	2015	1	1.75	0.00
G	2015	1	1.05	0.00
G	2015	1	4.80	0.00
G	2015	1	0.40	0.00
G	2015	2	1.05	0.00
G	2015	2	4.80	0.00
G	2015	2	19.00	0.00
G	2015	2	9.50	0.00
G	2015	2	30.00	0.00
G	2015	3	9.00	0.00
G	2015	3	6.00	0.00
G	2015	3	12.00	0.00
G	2015	3	9.00	0.00
G	2015	3	7.80	0.00
G	2015	3	4.80	0.00
G	2015	3	23.75	0.00
G	2015	3	27.00	0.00
G	2015	3	22.50	0.00
G	2015	3	1.42	0.00
G	2015	4	0.81	0.00
G	2015	4	7.20	0.00
G	2015	4	6.00	0.00
G	2015	4	19.55	0.00
G	2015	4	13.50	0.00
G	2015	4	20.00	0.00
G	2015	4	5.60	0.00

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
G	2015	4	6.40	0.00
G	2015	4	10.00	0.00
G	2015	4	8.50	0.00
G	2015	5	6.00	0.00
G	2015	5	17.50	0.00
G	2015	5	9.00	0.00
G	2015	5	25.00	0.00
G	2015	5	20.00	0.00
G	2015	5	50.00	0.00
G	2015	5	12.63	0.00
G	2015	5	8.42	0.00
G	2015	5	6.84	0.00
G	2015	5	1.68	0.00
G	2016	1	0.00	0.00
G	2016	1	0.00	0.00
G	2016	1	0.00	0.00
G	2016	1	0.00	0.48
G	2016	1	0.00	7.26
G	2016	1	0.00	0.00
G	2016	1	0.00	0.00
G	2016	1	0.00	0.00
G	2016	1	0.00	3.23
G	2016	1	0.00	0.00
G	2016	2	0.00	0.00
G	2016	2	0.00	0.00
G	2016	2	0.00	14.52
G	2016	2	0.00	0.00
G	2016	2	0.00	0.24
G	2016	2	0.16	0.97
G	2016	2	0.00	0.00
G	2016	2	0.00	0.00
G	2016	2	0.00	0.00
G	2016	2	0.00	0.24
G	2016	3	0.00	0.24
G	2016	3	0.00	1.13
G	2016	3	0.00	0.24
G	2016	3	0.00	0.08
G	2016	3	0.00	0.40
G	2016	3	0.00	0.00
G	2016	3	1.29	0.60
G	2016	3	0.20	0.48
G	2016	3	0.00	2.02
G	2016	3	0.00	0.00
G	2016	4	0.00	0.00
G	2016	4	0.20	2.02
G	2016	4	0.00	3.63
G	2016	4	1.61	9.07
G	2016	4	0.00	0.73
G	2016	4	0.00	0.60
G	2016	4	0.00	14.11
G	2016	4	0.00	0.85
G	2016	4	0.00	0.00
G	2016	4	0.00	0.00
G	2016	5	0.00	0.00
G	2016	5	0.00	0.00
G	2016	5	0.00	5.24
G	2016	5	0.00	0.00
G	2016	5	0.00	6.45
G	2016	5	0.00	5.44
G	2016	5	0.00	0.00

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
G	2018	1	0.00	2.70
G	2018	1	0.00	3.75
G	2018	1	0.00	0.00
G	2018	2	0.00	0.00
G	2018	2	0.00	0.00
G	2018	2	0.00	0.00
G	2018	2	0.00	0.00
G	2018	2	30.00	3.60
G	2018	2	0.00	1.40
G	2018	2	0.00	5.10
G	2018	2	0.00	4.00
G	2018	2	0.00	0.00
G	2018	2	0.00	7.00
G	2018	3	0.00	0.00
G	2018	3	0.00	0.00
G	2018	3	0.00	0.00
G	2018	3	0.00	0.00
G	2018	3	0.00	5.00
G	2018	3	0.00	0.55
G	2018	3	0.00	0.50
G	2018	3	0.00	1.70
G	2018	3	0.00	0.00
G	2018	3	0.00	16.00
G	2018	4	0.00	9.50
G	2018	4	0.00	0.00
G	2018	4	0.00	4.50
G	2018	4	0.00	0.00
G	2018	4	0.00	1.00
G	2018	4	0.00	1.60
G	2018	4	0.00	0.00
G	2018	4	0.00	2.70
G	2018	4	0.00	0.00
G	2018	4	0.00	0.90
G	2018	5	0.00	0.00
G	2018	5	0.00	0.00
G	2018	5	0.00	0.00
G	2018	5	0.00	0.40
G	2018	5	0.00	2.70
G	2018	5	0.00	2.70
G	2018	5	0.00	4.50
G	2018	5	0.00	5.10
G	2018	5	0.00	0.00
G	2018	5	0.00	0.00
H	2013	1	0.00	8.91
H	2013	1	0.00	7.73
H	2013	1	0.00	6.01
H	2013	1	0.00	3.01
H	2013	1	0.00	6.12
H	2013	2	0.00	6.92
H	2013	2	0.00	11.20
H	2013	2	0.00	12.50
H	2013	2	0.00	0.00
H	2013	2	0.00	1.53
H	2013	3	0.00	1.51
H	2013	3	0.00	13.04
H	2013	3	0.00	2.53
H	2013	3	0.00	3.24
H	2013	3	0.00	3.27
H	2013	4	0.00	3.27
H	2013	4	0.00	4.45

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
H	2013	4	0.00	7.09
H	2013	4	0.00	7.20
H	2013	4	0.00	1.20
H	2013	5	0.00	1.60
H	2013	5	0.00	6.65
H	2013	5	0.00	7.20
H	2013	5	0.00	5.47
H	2013	5	0.00	4.09
H	2013	6	0.00	2.89
H	2013	6	0.00	0.00
H	2013	6	0.00	4.92
H	2013	6	0.00	3.24
H	2013	6	0.00	5.43
H	2013	7	0.00	4.80
H	2013	7	0.00	11.68
H	2013	7	0.00	6.65
H	2013	7	0.00	1.40
H	2013	7	0.00	5.95
H	2013	8	0.00	2.31
H	2013	8	0.00	3.54
H	2013	8	0.00	1.02
H	2013	8	0.00	1.69
H	2013	8	0.00	0.50
H	2013	9	0.00	9.06
H	2013	9	0.00	7.81
H	2013	9	0.00	4.31
H	2013	9	0.00	3.67
H	2013	9	0.00	1.50
H	2013	10	0.00	14.25
H	2013	10	0.00	14.44
H	2013	10	0.00	6.18
H	2013	10	0.00	25.83
H	2013	10	0.00	14.31
H	2013	11	0.00	3.30
H	2013	11	0.00	4.02
H	2013	11	0.00	36.67
H	2013	11	0.00	12.18
H	2013	11	0.00	5.75
H	2014	1	0.00	6.67
H	2014	1	0.00	2.67
H	2014	1	0.00	2.67
H	2014	1	0.00	1.00
H	2014	1	0.00	1.00
H	2014	2	0.00	2.67
H	2014	2	0.00	12.00
H	2014	2	0.00	4.50
H	2014	2	0.00	1.67
H	2014	2	0.00	3.33
H	2014	3	0.00	7.00
H	2014	3	0.00	1.67
H	2014	3	0.00	5.00
H	2014	3	0.00	4.00
H	2014	3	0.00	3.33
H	2014	4	0.00	2.00
H	2014	4	0.00	8.00
H	2014	4	0.00	9.33
H	2014	4	0.00	4.67
H	2014	4	0.00	3.50
H	2014	5	0.00	12.83
H	2014	5	0.00	21.00

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
H	2014	5	0.00	7.00
H	2014	5	0.00	6.67
H	2014	5	0.00	20.00
H	2014	6	0.00	9.33
H	2014	6	0.00	1.67
H	2014	6	0.00	3.00
H	2014	6	0.00	5.33
H	2014	6	0.00	3.50
H	2014	7	0.00	9.33
H	2014	7	0.00	11.67
H	2014	7	0.00	5.33
H	2014	7	0.00	5.00
H	2014	7	0.00	0.50
H	2014	8	0.00	0.67
H	2014	8	0.00	5.00
H	2014	8	0.00	0.67
H	2014	8	0.00	13.33
H	2014	8	0.00	2.00
H	2014	9	0.00	1.83
H	2014	9	0.00	2.00
H	2014	9	0.00	23.33
H	2014	9	0.00	19.00
H	2014	9	0.00	6.67
H	2014	10	0.00	4.67
H	2014	10	0.00	3.33
H	2014	10	0.00	8.00
H	2014	10	0.00	1.33
H	2014	10	0.00	2.00
H	2015	1	1.33	0.40
H	2015	1	0.00	0.00
H	2015	1	0.00	0.07
H	2015	1	0.00	0.07
H	2015	1	0.00	0.17
H	2015	2	0.00	0.20
H	2015	2	0.00	0.03
H	2015	2	0.00	0.17
H	2015	2	0.00	0.83
H	2015	2	0.00	0.17
H	2015	3	0.00	1.33
H	2015	3	0.00	0.17
H	2015	3	0.00	0.13
H	2015	3	0.00	0.00
H	2015	3	0.00	1.67
H	2015	4	0.00	0.10
H	2015	4	0.00	0.83
H	2015	4	0.00	0.20
H	2015	4	0.00	0.00
H	2015	4	0.33	0.17
H	2015	5	0.00	0.13
H	2015	5	0.33	0.33
H	2015	5	0.00	2.00
H	2015	5	0.00	0.17
H	2015	5	0.00	0.67
H	2015	6	0.00	0.00
H	2015	6	0.00	0.03
H	2015	6	0.00	0.00
H	2015	6	0.00	0.17
H	2015	6	3.00	5.00
H	2015	7	0.00	0.83
H	2015	7	0.00	0.33

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
H	2015	7	0.00	0.50
H	2015	7	0.00	0.00
H	2015	7	0.00	0.07
H	2015	8	0.00	0.00
H	2015	8	0.00	0.13
H	2015	8	0.67	0.17
H	2015	8	13.33	0.50
H	2015	8	0.00	0.67
H	2015	9	0.00	0.00
H	2015	9	0.00	0.00
H	2015	9	9.33	0.17
H	2015	9	0.00	0.00
H	2015	9	0.00	0.33
H	2016	1	0.00	7.61
H	2016	1	0.00	2.46
H	2016	1	0.00	0.00
H	2016	1	0.00	4.48
H	2016	1	0.00	8.06
H	2016	2	0.00	0.00
H	2016	2	0.00	0.00
H	2016	2	0.00	2.24
H	2016	2	0.00	1.79
H	2016	2	0.00	4.48
H	2016	3	0.00	0.00
H	2016	3	0.00	13.43
H	2016	3	0.00	2.01
H	2016	3	0.00	3.58
H	2016	3	0.00	0.00
H	2016	4	0.00	0.00
H	2016	4	0.00	6.27
H	2016	4	0.00	3.81
H	2016	4	0.00	2.91
H	2016	4	0.00	0.63
H	2016	5	0.00	0.00
H	2016	5	0.00	1.61
H	2016	5	0.00	0.45
H	2016	5	0.04	0.36
H	2016	5	0.00	0.45
H	2016	6	0.00	0.36
H	2016	6	0.00	0.00
H	2016	6	0.00	2.69
H	2016	6	0.00	0.00
H	2016	6	0.00	2.91
H	2016	7	0.00	0.90
H	2016	7	0.00	3.36
H	2016	7	0.00	0.00
H	2016	7	0.00	8.96
H	2016	7	0.00	16.12
H	2016	8	0.00	2.91
H	2016	8	0.00	0.04
H	2016	8	0.00	0.00
H	2016	8	0.00	10.30
H	2016	8	0.00	0.00
H	2016	9	0.00	0.00
H	2016	9	0.00	4.48
H	2016	9	0.00	0.54
H	2016	9	0.00	0.00
H	2016	9	0.00	9.85
H	2017	1	0.00	0.00
H	2017	1	0.00	0.61

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
H	2017	1	0.00	1.11
H	2017	1	0.00	5.56
H	2017	1	0.00	3.06
H	2017	2	0.00	1.67
H	2017	2	0.00	0.28
H	2017	2	0.00	0.39
H	2017	2	0.00	0.14
H	2017	2	0.00	0.33
H	2017	3	0.00	0.44
H	2017	3	0.00	0.00
H	2017	3	0.00	1.67
H	2017	3	0.00	0.19
H	2017	3	0.00	0.56
H	2017	4	0.00	1.81
H	2017	4	0.00	2.22
H	2017	4	0.00	0.25
H	2017	4	0.00	0.03
H	2017	4	0.00	4.08
H	2017	5	0.00	0.61
H	2017	5	0.00	2.64
H	2017	5	0.00	0.83
H	2017	5	0.00	0.28
H	2017	5	0.00	0.28
H	2017	6	0.00	0.08
H	2017	6	0.00	0.08
H	2017	6	0.00	0.78
H	2017	6	0.00	0.67
H	2017	6	0.00	0.11
H	2017	7	0.00	0.36
H	2017	7	0.00	0.67
H	2017	7	0.00	0.44
H	2017	7	0.00	0.44
H	2017	7	0.00	0.06
H	2017	8	0.00	0.33
H	2017	8	0.00	1.28
H	2017	8	0.00	0.61
H	2017	8	0.00	0.44
H	2017	8	0.00	0.39
H	2017	9	0.00	1.00
H	2017	9	0.00	0.28
H	2017	9	0.00	0.22
H	2017	9	0.00	1.39
H	2017	9	0.00	2.08
H	2018	1	0.00	0.00
H	2018	1	0.00	0.00
H	2018	1	0.00	0.00
H	2018	1	0.00	0.00
H	2018	2	0.00	0.28
H	2018	2	0.00	0.00
H	2018	2	0.00	0.00
H	2018	2	0.00	4.26
H	2018	2	0.00	0.28
H	2018	3	0.00	0.00
H	2018	3	0.00	2.27
H	2018	3	0.00	0.00
H	2018	3	0.00	2.84
H	2018	3	0.00	0.00
H	2018	4	0.00	1.14
H	2018	4	0.00	0.28

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
H	2018	4	0.00	3.41
H	2018	4	0.00	5.68
H	2018	4	0.00	2.13
H	2018	5	0.00	0.85
H	2018	5	0.00	0.28
H	2018	5	0.00	1.70
H	2018	5	0.00	0.57
H	2018	5	0.00	0.28
H	2018	6	0.00	0.00
H	2018	6	0.00	0.00
H	2018	6	0.00	2.13
H	2018	6	0.00	0.14
H	2018	6	0.00	0.06
H	2018	7	0.00	3.41
H	2018	7	0.00	2.84
H	2018	7	0.00	7.10
H	2018	7	0.00	0.57
H	2018	7	0.00	4.26
H	2018	8	0.00	0.71
H	2018	8	0.00	0.06
H	2018	8	0.00	0.00
H	2018	8	0.00	0.00
H	2018	8	0.00	0.00
H	2018	8	0.00	0.00
H	2018	9	0.00	1.70
H	2018	9	0.00	0.57
H	2018	9	0.00	0.28
H	2018	9	0.00	0.43
H	2018	9	0.00	8.52
H	2018	10	0.00	0.00
H	2018	10	0.00	0.00
H	2018	10	0.00	0.00
H	2018	10	0.00	0.00
H	2018	10	0.00	0.00
I	2013	1	0.04	0.12
I	2013	1	0.42	0.11
I	2013	1	0.00	0.04
I	2013	1	0.47	0.49
I	2013	1	0.70	0.73
I	2013	2	1.03	0.16
I	2013	2	2.58	0.30
I	2013	2	1.17	0.10
I	2013	2	1.07	0.19
I	2013	2	0.80	1.32
I	2013	3	0.07	0.07
I	2013	3	0.70	0.47
I	2013	3	0.63	0.07
I	2013	3	1.93	2.51
I	2013	3	0.01	1.53
I	2013	4	11.09	3.64
I	2013	4	4.86	0.06
I	2013	4	0.58	0.35
I	2013	4	0.62	4.42
I	2013	4	0.10	4.50
I	2013	5	1.36	0.50
I	2013	5	0.43	1.39
I	2013	5	2.13	6.06
I	2013	5	0.10	4.79
I	2013	5	5.22	0.33
I	2013	6	3.14	0.94
I	2013	6	1.26	0.05

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequance x intensity.bunch-1)	Grey rot intensity on bunches (frequance x intensity.bunch-1)
I	2013	6	1.28	1.08
I	2013	6	1.59	3.96
I	2013	6	2.87	3.33
I	2013	7	0.02	1.04
I	2013	7	1.18	3.69
I	2013	7	0.52	2.12
I	2013	7	0.79	2.58
I	2013	7	0.94	4.20
I	2013	8	7.80	1.20
I	2013	8	1.34	2.07
I	2013	8	0.96	7.51
I	2013	8	1.74	5.80
I	2013	8	0.16	0.31
I	2013	9	0.00	2.45
I	2013	9	0.20	1.92
I	2013	9	1.12	2.20
I	2013	9	0.26	2.34
I	2013	9	2.66	0.15
I	2013	10	1.31	1.39
I	2013	10	1.21	0.72
I	2013	10	0.52	0.91
I	2013	10	0.08	0.08
I	2013	10	0.50	0.73
I	2014	1	0.00	0.50
I	2014	1	0.00	1.33
I	2014	1	0.00	1.33
I	2014	1	0.00	2.67
I	2014	1	0.07	0.20
I	2014	2	0.00	0.00
I	2014	2	0.00	0.07
I	2014	2	0.00	0.67
I	2014	2	0.00	0.07
I	2014	2	0.00	0.00
I	2014	3	0.00	0.40
I	2014	3	0.00	0.50
I	2014	3	0.00	1.07
I	2014	3	0.00	0.00
I	2014	3	0.00	1.67
I	2014	4	0.00	0.00
I	2014	4	0.00	0.17
I	2014	4	0.03	0.33
I	2014	4	0.00	0.33
I	2014	4	0.00	0.07
I	2014	5	0.00	0.20
I	2014	5	0.03	0.13
I	2014	5	0.00	0.00
I	2014	5	0.00	0.33
I	2014	5	0.00	0.67
I	2014	6	0.00	2.67
I	2014	6	0.03	0.07
I	2014	6	0.00	0.33
I	2014	6	0.13	0.50
I	2014	6	0.00	4.00
I	2014	7	0.00	0.67
I	2014	7	0.00	0.20
I	2014	7	0.00	1.00
I	2014	7	0.00	0.33
I	2014	7	0.00	2.33
I	2014	8	0.03	1.00
I	2014	8	0.00	0.50

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequance x intensity.bunch-1)	Grey rot intensity on bunches (frequance x intensity.bunch-1)
I	2014	8	0.00	0.13
I	2014	8	0.00	1.00
I	2014	8	0.00	0.27
I	2014	9	0.00	0.00
I	2014	9	0.00	1.00
I	2014	9	0.00	0.20
I	2014	9	0.00	0.33
I	2014	9	0.00	0.00
I	2014	10	0.00	0.07
I	2014	10	0.00	0.07
I	2014	10	0.00	1.00
I	2014	10	0.00	0.07
I	2014	10	0.00	0.13
I	2015	1	0.29	0.00
I	2015	1	0.12	0.00
I	2015	1	0.12	0.00
I	2015	1	0.00	0.00
I	2015	1	0.00	0.00
I	2015	2	0.00	0.00
I	2015	2	0.00	0.00
I	2015	2	0.00	0.00
I	2015	2	0.06	0.00
I	2015	2	0.00	0.00
I	2015	3	3.82	0.00
I	2015	3	6.18	0.00
I	2015	3	3.82	0.00
I	2015	3	0.06	0.00
I	2015	3	2.65	0.00
I	2015	4	0.00	0.00
I	2015	4	1.32	0.00
I	2015	4	0.59	0.00
I	2015	4	0.06	0.15
I	2015	4	5.74	0.00
I	2015	5	0.65	0.00
I	2015	5	1.18	0.00
I	2015	5	1.47	0.00
I	2015	5	17.65	0.00
I	2015	5	7.06	0.00
I	2015	6	4.41	0.00
I	2015	6	1.18	0.00
I	2015	6	1.62	0.00
I	2015	6	7.94	0.00
I	2015	6	6.47	0.00
I	2015	7	0.24	0.00
I	2015	7	0.88	0.00
I	2015	7	2.94	0.15
I	2015	7	1.47	0.00
I	2015	7	5.74	0.00
I	2015	8	0.47	0.00
I	2015	8	0.53	0.00
I	2015	8	1.62	0.00
I	2015	8	1.03	0.00
I	2015	8	0.12	0.00
I	2015	9	0.06	0.00
I	2015	9	0.00	0.00
I	2015	9	9.41	0.00
I	2015	9	0.88	0.00
I	2015	9	2.65	0.00
I	2015	10	9.41	0.00
I	2015	10	0.12	0.00

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequance x intensity.bunch-1)	Grey rot intensity on bunches (frequance x intensity.bunch-1)
I	2017	2	0.00	0.00
I	2017	2	0.00	0.00
I	2017	2	0.00	0.00
I	2017	3	0.00	0.00
I	2017	3	0.00	0.00
I	2017	3	0.00	0.00
I	2017	3	0.00	0.00
I	2017	3	0.00	0.00
I	2017	4	0.00	0.00
I	2017	4	0.00	0.00
I	2017	4	0.00	0.00
I	2017	4	0.00	0.00
I	2017	4	0.00	0.00
I	2017	4	0.00	0.00
I	2017	4	0.00	0.00
I	2017	5	0.00	0.00
I	2017	5	0.00	0.00
I	2017	5	0.00	0.00
I	2017	5	0.00	0.00
I	2017	5	0.00	0.00
I	2017	5	0.00	0.00
I	2017	6	0.00	0.00
I	2017	6	0.00	0.00
I	2017	6	0.00	0.00
I	2017	6	0.00	0.00
I	2017	6	0.00	0.00
I	2017	6	0.00	0.00
I	2017	7	0.00	0.00
I	2017	7	0.00	0.00
I	2017	7	0.00	0.00
I	2017	7	0.00	0.00
I	2017	7	0.00	0.00
I	2017	7	0.00	0.00
I	2017	8	0.00	0.00
I	2017	8	0.00	0.00
I	2017	8	0.00	0.00
I	2017	8	0.00	0.00
I	2017	8	0.00	0.00
I	2017	9	0.00	0.00
I	2017	9	0.00	0.00
I	2017	9	0.00	0.00
I	2017	9	0.00	0.00
I	2017	9	0.00	0.00
I	2018	1	0.00	0.40
I	2018	1	0.00	0.21
I	2018	1	0.00	2.84
I	2018	1	0.00	0.02
I	2018	1	0.00	0.38
I	2018	2	0.00	0.00
I	2018	2	0.00	0.02
I	2018	2	0.00	0.04
I	2018	2	0.00	0.04
I	2018	2	0.00	0.02
I	2018	3	0.00	0.02
I	2018	3	0.00	0.00
I	2018	3	0.00	0.02
I	2018	3	0.00	0.00
I	2018	3	0.00	0.01
I	2018	4	0.00	0.01
I	2018	4	0.00	0.01
I	2018	4	0.00	0.01
I	2018	4	0.00	0.01
I	2018	4	0.00	0.01
I	2018	5	0.00	0.01
I	2018	5	0.00	0.01

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
J	2017	30	0.00	0.00
J	2017	30		
J	2017	30		
J	2017	30	0.00	0.00
J	2017	30		
J	2017	30	0.00	0.00
J	2017	30	0.00	0.00
J	2017	30		
J	2017	30		
J	2017	30	0.00	0.00
J	2017	30	0.00	0.00
J	2017	30		
J	2018	1	0.00	3.60
J	2018	1	0.00	2.80
J	2018	1	0.00	2.80
J	2018	1	0.00	1.20
J	2018	1	0.00	0.40
J	2018	1	0.00	4.20
J	2018	1		
J	2018	1		
J	2018	1	0.00	1.20
J	2018	1	0.00	3.20
J	2018	2	0.00	2.80
J	2018	2		
J	2018	2		
J	2018	2	0.00	0.40
J	2018	2	0.00	0.10
J	2018	2	0.00	6.40
J	2018	2	0.00	1.20
J	2018	2	0.00	1.20
J	2018	2		
J	2018	2	0.00	0.35
J	2018	3	0.00	0.70
J	2018	3	0.00	0.50
J	2018	3	0.00	2.40
J	2018	3		
J	2018	3	0.00	0.70
J	2018	3		
J	2018	3	0.00	0.20
J	2018	3	0.00	0.50
J	2018	3	0.00	0.10
J	2018	3	0.00	0.10
J	2018	3		
J	2018	3	0.00	2.00
J	2018	3		
J	2018	3	0.00	0.25
J	2018	3	0.00	0.12
J	2018	22	0.00	0.01
J	2018	22	0.00	0.01
J	2018	22	0.00	0.02
J	2018	22	0.00	0.00
J	2018	22	0.00	0.01
J	2018	22	0.00	0.01
J	2018	22	0.00	0.01
J	2018	22	0.00	0.00
J	2018	22	0.00	0.00
J	2018	22	0.00	0.01
J	2018	22	0.00	0.01
J	2018	23	0.00	0.00
J	2018	23	0.00	0.01

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**Table 11** (continued)

#code	YEAR	Placette	Powdery mild intensity on bunches (frequence x intensity.bunch-1)	Grey rot intensity on bunches (frequence x intensity.bunch-1)
J	2018	23	0.00	0.05
J	2018	23	0.00	0.10
J	2018	23	0.00	0.00
J	2018	23	0.00	0.00
J	2018	23	0.00	0.01
J	2018	23	0.00	0.00
J	2018	23	0.00	0.00
J	2018	23	0.00	0.00
J	2018	23	0.00	0.00
J	2018	24	0.00	0.01
J	2018	24	0.00	0.01
J	2018	24	0.00	0.00
J	2018	24	0.00	0.00
J	2018	24	0.00	0.00
J	2018	24	0.00	0.04
J	2018	24	0.00	0.04
J	2018	24	0.00	0.75
J	2018	24	0.00	0.15
J	2018	24	0.00	0.25
J	2018	24	0.00	0.20
J	2018	24	0.00	2.00
J	2018	24	0.00	0.30
J	2018	24	0.00	0.10
J	2018	24		
J	2018	24	0.00	0.01
J	2018	28		
J	2018	28	0.00	0.01
J	2018	28	0.00	0.00
J	2018	28		
J	2018	28	0.00	0.01
J	2018	28	0.00	0.01
J	2018	28	0.00	0.04
J	2018	28	0.00	2.40
J	2018	28	0.00	0.01
J	2018	28	0.00	0.04
J	2018	29	0.00	0.01
J	2018	29	0.00	0.40
J	2018	29	0.00	0.50
J	2018	29	0.00	0.20
J	2018	29	0.00	0.20
J	2018	29	0.00	0.09
J	2018	29	0.00	0.04
J	2018	29	0.00	0.20
J	2018	29	0.00	0.01
J	2018	29	0.00	0.04
J	2018	30	0.00	0.00
J	2018	30	0.00	0.00
J	2018	30	0.00	0.01
J	2018	30		
J	2018	30	0.00	0.40
J	2018	30		
J	2018	30	0.00	0.01
J	2018	30	0.00	0.25
J	2018	30		
J	2018	30		
J	2018	30		
J	2018	30	0.00	0.05
J	2018	30	0.00	0.05
J	2018	30		
K	2017	4	0.00	0.00
K	2017	4	0.00	0.00

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**Table 12**

Features of grape juice at harvest in each studied plot and year (sugar total acidity, pH, malic acid, tartaric acid, and  $^{12}\text{C}$ . $^{13}\text{C}$ -1).  $^{12}\text{C}$ . $^{13}\text{C}$ -1 ratio assesses global vine water uptake conditions between veraison and harvest.

#code	Year	Juice refractometer index (Brix degrees)	Juice sugar (g.L-1)	Juice total acidity (H2SO4 g.L-1)	Juice total acidity (% Vol)	Juice pH	Juice malic acid (g.L-1)	Juice tartaric acid (g.L-1)	Juice $^{12}\text{C}$ . $^{13}\text{C}$ -1
A	2013	22.62	221.3	5.71	12.6	3.09	2.96	7.12	-26.72
A	2014	20.9	202.2	6.88	12	3.03	5.2	7.12	-26.83
A	2015	21.6	210.2	4.14	12.50	3.29	1.40	6.24	-26.52
A	2016	22.9	225.1	4.52	13.40	3.27	2.24	6.57	-27.08
A	2017	20.7	199.9	4.84	11.9	3.2	2.64	6.28	-26.1
A	2018	23.9	236.7	3.12	14.06	3.4	1.78	4.38	-26.5
B	2013	20.94	201	6.7	11.9	2.89	4.24	5.92	-28.93
B	2014	21.7	211.3	5.82	12.6	2.86	3.69	7.57	-28.16
B	2015	22.5	220.49	6.71	13.10	3.03	2.37	8.89	-27.5
B	2016	22.1	215.9	4.95	12.80	3.08	2.89	6.35	-28.13
B	2017	23.09	236.7	4.89	14.1	3.08	3	5.24	-27.53
B	2018	21	203.3	5.1	12.08	3.06	1.48	8.04	-26.9
C	2013	22.65	221.6	5.22	13.2	3.08	3.12	6.24	-26.67
C	2014	21.8	212.2	6.16	12.6	2.98	4.72	6	-26.67
C	2015	22.7	222.8	3.57	13.20	3.29	1.12	6	-26.35
C	2016	24.2	240.2	3.81	14.30	3.25	2.17	5.34	-26.91
C	2017	22.8	223.9	3.52	13.3	3.47	2.64	3.84	-26.45
C	2018	22.5	220.5	3.94	13.10	3.35	1.64	6.48	-26.3
D	2013	22.36	218.2	5.3	13	3.06	3.32	6.52	-26.7
D	2014	21.8	212.5	6.04	12.8	2.98	4.48	6.72	-26.99
D	2015	22.1	215.9	3.78	12.80	3.25	1.16	6.32	-26.60
D	2016	23.8	235.5	4.14	14.00	3.19	2.08	5.12	-26.93
D	2017	23	226.3	3.65	13.4	3.48	3.32	4.36	-26.19
D	2018	23.8	235.5	3.17	13.99	3.42	1.98	4.48	-26.4
E	2017	19.1	181.8	4.98	10.8	3.16	3.92	4.72	-25.79
E	2018	19.7	188.5	3.91	11.20	3.247	1.52	6.24	-25.8
F	2017	19.4	185.1	5.11	11	3.06	4.44	4.48	-25.83
F	2018	21.4	207.9	3.16	12.35	3.409	1.98	4.34	-26
G	2013	22.65	194.2	6.89	11.5	2.86	3.8	6.8	-28.68
G	2014	21.4	208.2	5.77	12.4	2.84	3.49	7.52	-27.98
G	2015	22.9	225.10	6.73	13.38	2.98	2.31	8.51	-27.48
G	2016	22.7	228.8	4.68	13.20	3.11	2.55	6.26	-28.26
G	2017	23.3	229.7	5.4	13.6	2.99	2.88	5.84	-27.88
G	2018	20.7	199.9	4.67	11.88	3.11	1.20	7.76	-26.2
H	2013	22.65	179.5	6.34	10.7	6.34	3.6	6.6	-25.67
H	2014	21.1	204.4	6.95	12.1	2.94	4.12	7.84	-26.74
H	2015	20.7	119.9	3.93	11.90	3.25	1.36	7.28	-23.68
H	2016	17.5	163.8	4.34	9.70	3.23	1.68	6.04	-24.27
H	2017	19.1	181.8	5.55	10.8	3.4	2.24	8.4	-22.73
H	2018	18.6	176.1	4.42	10.47	3.14	0.96	8.04	-23.2
I	2013	22.65	162.7	9.05	9.7	3.01	8	7.48	-28
I	2014	18.3	172.8	10.16	10.3	2.7	8.24	9.12	-28.23
I	2015	20.3	198.3	7.24	11.60	2.9	4.64	8.68	-27.09
I	2016	19.3	184	6.73	10.90	2.93	3.93	8.09	-28.08
I	2017	19.8	189.7	7.2	11.3	2.85	4.54	8.33	-27.53
I	2018	21.1	204.4	5.76	12.15	3.05	2.80	8.74	-27.6
J	2017	21.3	206.7	4.75	12.3	3.12	2.93	6.12	-25.03
J	2018	20.5	197.6	3.52	11.74	3.271	1.22	5.64	-26.1
K	2017	20.4	196.5	5.3	11.7	3.05	3.47	6.39	-27.09
K	2018	21.9	213.6	3.45	12.69	3.292	1.58	4.88	-27.3

**Table 13**

Descriptors of the sensory evaluation of wines (color intensity; aroma intensity, floral aroma, fruit aroma, mineral aroma, vegetable aroma, aroma quality; sparkling intensity; taste acidity, sugar, bitterness, length and quality; sensorial quality).

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Sensorial quality
A	2013	Still	Pinot Gris	7	1	4	9	2	4	5	3	7		5	3	2	8	7	7
A	2013	Still	Pinot Gris	2	1	4	6	5	5	0	1	5		9	5	2	8	8	7
A	2013	Still	Pinot Gris	4	1	1	2	8	6	4	2	4		9	2	9	8	1	1
A	2013	Still	Pinot Gris	11	1	3	9	7	6	6	1	7		5	2	3	7	6	6
A	2013	Still	Pinot Gris	9	1	3	4	4	4	1	0	4		7	0	0	9	7	6
A	2013	Still	Pinot Gris	1	1	4	5	4	4	0	0	4		5	1	2	4	4	4
A	2013	Still	Pinot Gris	5	1	3	5	1	8	4	3	6		6	1	1	5	5	5
A	2013	Still	Pinot Gris	8	1	6	4	5	3	7	4	4		8	4	3	6	4	5
A	2013	Still	Pinot Gris	3	1	1	8	4	7	8	1	8		8	6	1	5	8	8
A	2013	Still	Pinot Gris	6	1	1	6	6	5	7	1	8		6	6	4	7	8	8
A	2013	Still	Pinot Gris	10	1	3	2	4	3	4	4	4		2	4	1	5	4	2
A	2013	Still	Pinot Gris	4	2	3	9	8	7	9	7	8		9	7	8	5	7	8
A	2013	Still	Pinot Gris	10	2	2	8	2	1	7	2	7		9	4	1	5	5	5
A	2013	Still	Pinot Gris	9	2	2	5	1	1	5	1	4		5	5	7	7	5	5
A	2013	Still	Pinot Gris	7	2	1	8	9	5	3	6	8		8	7	4	1	6	4
A	2013	Still	Pinot Gris	3	2	3	6	5	6	3	7	5		8	7	6	4	6	6
A	2013	Still	Pinot Gris	1	2	5	6	1	6	1	1	5		3	4	0	4	4	5
A	2013	Still	Pinot Gris	6	2		8	2	0	0	6	3		6	7	1	6	8	6
A	2013	Still	Pinot Gris	12	2	3	7	3	1	5	6			3	2	7	4	4	4
A	2013	Still	Pinot Gris	2	2	2	7	4	2	3	0	4		6	8	0	8	6	6
A	2013	Still	Pinot Gris	11	2	2	5	3	3	1	2	2		2	6	3	1	2	2
A	2013	Still	Pinot Gris	5	2	1	6	1	0	8	0	4		5	4	6	7	7	6
A	2013	Still	Pinot Gris	8	2	2	4	2	1	4	4	4		3	2	3	2	3	3
B	2013	Still	Riesling	7	1	8	6	5	5	5	2	7		5	1	1	7	7	8
B	2013	Still	Riesling	2	1	7	7	1	6	8	0	7		7	0	4	7	7	7
B	2013	Still	Riesling	4	1	9	2	8	2	3	8	6		8	4	3	3	4	5
B	2013	Still	Riesling	11	1	6	5	6	5	3	2	4		4	1	6	4	4	4
B	2013	Still	Riesling	9	1	7	7	7	8	5	1	7		6	1	2	8	7	8
B	2013	Still	Riesling	1	1	6	6	4	6	1	0	6		5	1	0	6	6	6
B	2013	Still	Riesling	5	1	5	5	2	7	1	0	6		7	1	4	6	6	6
B	2013	Still	Riesling	8	1	8	7	3	3	4	4	3		2	2	1	4	4	4
B	2013	Still	Riesling	3	1	5	4	1	1	6	3	3		7	1	0	5	4	4
B	2013	Still	Riesling	6	1	5	7	0	5	7	0	3		8	2	1	8	4	3
B	2013	Still	Riesling	10	1	6	2	2	1	1	0	2		5	4	2	5	5	3
B	2013	Still	Riesling	4	2	9	8	8	7	8	7	8		9	8	7	7	8	8

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
B	2013	Still	Riesling	10	2	6	8	0	0	9	0	0		3	4	0	1	4	2
B	2013	Still	Riesling	9	2	9	7	5	5	1	5	4		6	4	6	6	4	4
B	2013	Still	Riesling	7	2	6	6	8	5	3	8	6		9	3	8	7	3	4
B	2013	Still	Riesling	3	2	8	3	6	3	7	4	3		3	4	6	4	3	3
B	2013	Still	Riesling	1	2	8	9	5	1	5	0	7		5	0	2	6	6	6
B	2013	Still	Riesling	6	2	9	9	8	2	2	5	2		9	0	0	4	1	2
B	2013	Still	Riesling	12	2	6	6	6	3	1	6	4		5	2	4	2	0	1
B	2013	Still	Riesling	2	2	8	6	1	1	1	3	3		8	1	6	6	1	3
B	2013	Still	Riesling	11	2	8	7	3	3	8	3	6		2	2	3	1	2	3
B	2013	Still	Riesling	5	2	8	5	1	5	6	0	5		8	1	6	7	6	6
B	2013	Still	Riesling	8	2	8	6	3	6	7	3	6		3	2	4	5	4	5
C	2013	Still	Pinot Gris	7	1	3	8	3	4	3	4	6		6	1	2	8	7	7
C	2013	Still	Pinot Gris	2	1	6	7	6	6	0	5	5		7	1	7	6	6	6
C	2013	Still	Pinot Gris	4	1	2	7	6	8	8	4	7		8	6	3	7	7	7
C	2013	Still	Pinot Gris	11	1	4	8	7	6	7	2	8		9	1	7	7	2	3
C	2013	Still	Pinot Gris	9	1	2	6	2	8	2	1	6		7	0	0	9	7	9
C	2013	Still	Pinot Gris	1	1	4	6	3	6	0	0	6		3	2	1	6	6	6
C	2013	Still	Pinot Gris	5	1	1	3	0	0	8	1	3		6	4	3	6	5	4
C	2013	Still	Pinot Gris	8	1	7	6	8	4	3	3	6		7	4	2	4	5	6
C	2013	Still	Pinot Gris	3	1	0	8	8	8	6	4	9		6	6	0	5	9	8
C	2013	Still	Pinot Gris	6	1	1	5	5	1	6	0	5		5	5	6	8	7	7
C	2013	Still	Pinot Gris	10	1	2	2	1	2	3	0	2		4	3	2	6	6	4
C	2013	Still	Pinot Gris	4	2	3	8	8	7	8	7	8		7	8	7	5	7	7
C	2013	Still	Pinot Gris	10	2	2	8	1	1	7	2	6		8	3	3	5	3	3
C	2013	Still	Pinot Gris	9	2	2	5	2	3	4	1	2		7	4	8	7	3	3
C	2013	Still	Pinot Gris	7	2	1	8	7	5	3	6	8		6	5	4	8	8	9
C	2013	Still	Pinot Gris	3	2	5	7	5	6	5	7	4		7	7	4	7	6	6
C	2013	Still	Pinot Gris	1	2	5	5	3	5	0	0	6		3	5	1	6	6	6
C	2013	Still	Pinot Gris	6	2	6	6	4	6	7	7	4		9	1	1	5	0	0
C	2013	Still	Pinot Gris	12	2	4	6	2	6	3	5	6		3	6	1	5	6	6
C	2013	Still	Pinot Gris	2	2	2	7	8	5	2	2	7		7	4	1	6	7	7
C	2013	Still	Pinot Gris	11	2	2	3	2	3	1	3	2		3	5	3	2	3	2
C	2013	Still	Pinot Gris	5	2	2	8	6	1	9	0	8		6	7	4	5	5	5
C	2013	Still	Pinot Gris	8	2	3	4	0	2	4	3	4		3	4	1	7	6	6
D	2013	Still	Pinot Gris	7	1	4	8	4	6	3	2	8		4	3	4	8	6	6
D	2013	Still	Pinot Gris	2	1	5	7	3	0	0	6	4		8	2	4	9	7	7

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
D	2013	Still	Pinot Gris	4	1	0	6	8	6	7	3	6		3	8	3	4	6	5
D	2013	Still	Pinot Gris	11	1	4	5	6	6	5	1	4		8	1	6	5	4	4
D	2013	Still	Pinot Gris	9	1	2	2	2	2	1	4	2		7	0	1	8	7	4
D	2013	Still	Pinot Gris	1	1	4	4	2	5	0	1	5		4	2	0	5	5	5
D	2013	Still	Pinot Gris	5	1	3	4	4	1	6	3	5		7	1	1	5	4	5
D	2013	Still	Pinot Gris	8	1	2	7	3	5	7	4	5		8	3	2	4	5	5
D	2013	Still	Pinot Gris	3	1	1	8	2	9	6		8		8	0	1	6	7	6
D	2013	Still	Pinot Gris	6	1	2	2	4	5	7	0	4		7	0	7	4	3	2
D	2013	Still	Pinot Gris	10	1	2	7	1	1	3	4	2		4	2	1	3	3	3
D	2013	Still	Pinot Gris	4	2	2	8	9	8	8	7	8		8	7	7	5	8	8
D	2013	Still	Pinot Gris	10	2	1	3	4	3	4	1	7		6	3	1	5	7	7
D	2013	Still	Pinot Gris	9	2	3	3	1	2	2	2	2		5	5	6	6	5	5
D	2013	Still	Pinot Gris	7	2	3	6	4	7	3	6	8		8	3	2	3	2	3
D	2013	Still	Pinot Gris	3	2	5	7	4	6	4	7	2		6	7	6	7	7	7
D	2013	Still	Pinot Gris	1	2	5	4	2	5	0	1	4		3	5	4	5	4	4
D	2013	Still	Pinot Gris	6	2	5	6	3	7	8	8	3		8	2	1	6	0	2
D	2013	Still	Pinot Gris	12	2	3	4	2	0	7	3	3		5	1	2		3	3
D	2013	Still	Pinot Gris	2	2	2		6	5	2	2	5		6	6	2	7	6	6
D	2013	Still	Pinot Gris	11	2	2	2	2	3	1	2	2		2	3	4	3	3	3
D	2013	Still	Pinot Gris	5	2	4	4	2	4	7	0	5		5	6	7	8	3	3
D	2013	Still	Pinot Gris	8	2	3	4	1	1	3	3	2		4	3	3	2	4	3
G	2013	Still	Riesling	7	1	8	5	4	3	2	2	5		6	0	3	5	6	6
G	2013	Still	Riesling	2	1	7	9	0	6	9	0	9		9	1	3	7	4	6
G	2013	Still	Riesling	4	1	7	3	0	0	5	5	2		9	1	3	7	1	1
G	2013	Still	Riesling	11	1	7	7	4	6	4	2	4		6	2	7	6	5	4
G	2013	Still	Riesling	9	1	7	7	7	9	2	1	8		8	7	9	9	6	7
G	2013	Still	Riesling	1	1	6	6	2	4	6	2	6		6	0	2	4	5	5
G	2013	Still	Riesling	5	1	7	6	3	6	4	1	8		6	1	4	6	6	7
G	2013	Still	Riesling	8	1	9	8	6	8	4	2	7		4	6	2	7	6	7
G	2013	Still	Riesling	3	1	5	8	2	3	8	6	5		7	2	0	8	7	6
G	2013	Still	Riesling	6	1	8	8	2	0	5	1	2		8	0	4	5	2	2
G	2013	Still	Riesling	10	1	9	6	7	6	3	4	5		7	3	1	5	6	7
G	2013	Still	Riesling	4	2	8	8	6	6	7	8	7		8	8	7	7	7	7
G	2013	Still	Riesling	10	2	7	10	0	0	10	0	0		7	1	1	5	0	0
G	2013	Still	Riesling	9	2	7	5	3	3	4	3	5	0		5	7	6		5
G	2013	Still	Riesling	7	2	6	4	3	7	4	7	5		5	4	3	6	7	7

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
G	2013	Still	Riesling	3	2	7	2	2	3	8	5	2		2	2	6	7	1	2
G	2013	Still	Riesling	1	2	8	7	6	1	4	0	6		5	0	1	5	5	5
G	2013	Still	Riesling	6	2	9	8	6	3	2	3	5		9	1	1	4	2	1
G	2013	Still	Riesling	12	2	7	4	5	2	2	4	5		3	4	7	2	2	2
G	2013	Still	Riesling	2	2	6	6		7	0	3	2		7	0	3	8	3	3
G	2013	Still	Riesling	11	2	8	8	3	5	9	5	8		5	2	5	2	5	4
G	2013	Still	Riesling	5	2	9	2	2	0	3	0	2		6	5	3	9	6	5
G	2013	Still	Riesling	8	2	9	7	5	2	2	5	5		2	4	5	3	5	5
H	2013	Still	Riesling	7	1	7	7	6	4	3	1	7		5	0	2	8	7	8
H	2013	Still	Riesling	2	1	7	8	0	4	8	0	7		8	0	2	8	8	8
H	2013	Still	Riesling	4	1	8	6	1	1	7	2	2		8	7	7	4	6	5
H	2013	Still	Riesling	11	1	5	7	4	4	4	1	4		1	2	6	6	5	5
H	2013	Still	Riesling	9	1	7	6	4	4	6	3	5		8	1	3	8	7	7
H	2013	Still	Riesling	1	1	6	4	2	2	3	1	4		4	0	3	4	4	4
H	2013	Still	Riesling	5	1	5	5	2	1	3	5	3		8	0	2	4	3	3
H	2013	Still	Riesling	8	1	6	9	7	9	7	1	8		8	3	6	4	4	6
H	2013	Still	Riesling	3	1	2	5	1	7	4	1	6		9	6	3	8	7	5
H	2013	Still	Riesling	6	1	7	8	1	1	6	1	1		8	0	0	6	2	1
H	2013	Still	Riesling	10	1	5	7	7	6	3	0	6		5	4	8	5	2	4
H	2013	Still	Riesling	4	2	9	9	9	8	8	8	8		9	8	7	7	7	7
H	2013	Still	Riesling	10	2	6	10	0	0	0	0	2	0	4	1	1	1	0	0
H	2013	Still	Riesling	9	2	8	6	4	4	1	4	4		4	4	7	7	5	5
H	2013	Still	Riesling	7	2	4	3	3	0	7	0	0		1	0	7	4	3	3
H	2013	Still	Riesling	3	2	3	3	4	7	7	3	2		6	4	4	5	2	3
H	2013	Still	Riesling	1	2	8	5	5	1	0	2	4		4	0	0	4	4	4
H	2013	Still	Riesling	6	2	7	8	0	7	9	1	1		9	0	1	5	0	1
H	2013	Still	Riesling	12	2	5	6	5	4	3	2		3	0	4		1	2	
H	2013	Still	Riesling	2	2	7	7	1	1	1	7	1		8	1	7	4	2	2
H	2013	Still	Riesling	11	2	6	3	3	4	1	3	3		2	2	2	1	2	2
H	2013	Still	Riesling	5	2	8	5	1	5	7	0	5		8	4	2	7	5	5
H	2013	Still	Riesling	8	2	8	3	1	2	3	3	3		3	2	2	2	3	2
I	2013	Spark	Riesling	6	1	6	6	2	7	3	7	7	8	5	2	1	4	7	7
I	2013	Spark	Riesling	2	1		2						1	10	2	6	6	2	2
I	2013	Spark	Riesling	8	1	6	4	2	4	4	5		9	4	1	0	5	5	5
I	2013	Spark	Riesling	4	1	5	3	0	5	7	0	2	3	5	5	6	3	3	3
I	2013	Spark	Riesling	7	1	6	6	8	0	0	3	6	6	7	3	2	5	7	8

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**Table 13**  
(continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
I	2013	Spark	Riesling	11	1	2	7	5	4	2	5	6	2	8	2	3	6	4	5
I	2013	Spark	Riesling	1	1	8	6	4	2	3	0	5	7	5	2	1	8	5	5
I	2013	Spark	Riesling	5	1	7	7	6	0	6	6	6	8	6	4	5	6	5	6
I	2013	Spark	Riesling	10	1	8	2	1	2	4	2	2	5	2	1	6	2	2	3
I	2013	Spark	Riesling	3	1	3	3	3	3	4	0	2	4	6	4	6	3	4	4
I	2013	Spark	Riesling	9	1	4	4	0	2	4	0	4	6	7	3	6	7	7	5
I	2013	Spark	Riesling	4	2	7	8	9	7	9	9	8	7	9	7	8	6	6	6
I	2013	Spark	Riesling	10	2	4	8	1	6	1	6	3	3	7	2	1	3	4	3
I	2013	Spark	Riesling	9	2	6	6	5	1	3	2	5	5	3	5	5	6	5	6
I	2013	Spark	Riesling	7	2	5	6	5	3	3	7	2	4	7	3	6	7	2	3
I	2013	Spark	Riesling	3	2	6	8	6	8	4	3	6	7	6	6	7	3	5	6
I	2013	Spark	Riesling	1	2	8	7	3	7	3	1	6		8	0	3	5	4	4
I	2013	Spark	Riesling	6	2	5	5	8	5	5	7	3	5	8	2	1	8	3	2
I	2013	Spark	Riesling	12	2	4	4	5	4	1	2	3	7	5	2	4	3	1	1
I	2013	Spark	Riesling	2	2	6		3	8	1	1	7	7	8	2	0	8	7	7
I	2013	Spark	Riesling	11	2	4	6	4	2	4	2	5	6	4	5	4	5	6	6
I	2013	Spark	Riesling	5	2	6	6	2	8	6	0	6	3	6	2	2	8	8	8
I	2013	Spark	Riesling	8	2	4	2	2	0	2	2	2	8	4	2	3	4	3	3
A	2014	Still	Pinot Gris	6	2	4	5	7	0	0	0	3		8	0	3	2	4	2
A	2014	Still	Pinot Gris	5	1	2	4	1	2	4	1	3		9	3	4	6	2	3
A	2014	Still	Pinot Gris	13	2	2	5	6	4	3	1	5		7	4	2	6	5	5
A	2014	Still	Pinot Gris	8	2	3	7	3	3	4	7	5		3	4	3	4	5	5
A	2014	Still	Pinot Gris	11	2	2	6	1	2	0	0	3		5	0	2	5	4	4
A	2014	Still	Pinot Gris	3	2	2	6	3	6	5	1	6		2	1	2	3	3	4
A	2014	Still	Pinot Gris	4	1	2	2	6	2	6	5	3		6	4	2	7	7	6
A	2014	Still	Pinot Gris	4	2	3	6	3	6	2	0	6		4		4	5	4	4
A	2014	Still	Pinot Gris	3	1	3	4	6	5	2	6	4		4	4	5	4	4	4
A	2014	Still	Pinot Gris	5	2	4	4	7	6	8	6	10		3	4	7	7	7	7
A	2014	Still	Pinot Gris	7	1	4	7	5	5	7	5	7		6	5	4	7	6	8
A	2014	Still	Pinot Gris	10	2	3	5	6	6	1	1	4		4	2	0	6	4	4
A	2014	Still	Pinot Gris	2	1	3	5	3	2	5	6	5		8	2	5	7	4	5
A	2014	Still	Pinot Gris	1	2	5	7	5	5	0	1	6		2	3	0	7	7	7
A	2014	Still	Pinot Gris	6	1	4	4	4	5	1	3	6		5	3	2	6	6	6
A	2014	Still	Pinot Gris	9	2	2	4	2	1	8	2	6		7	0	4	7	0	6
A	2014	Still	Pinot Gris	8	1	2	4	4	2	7	7	3		6	5	3	6	6	4
A	2014	Still	Pinot Gris	2	2	4	6	7	5	3	4	5		5	2	3	4	4	4

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**Table 13**  
(continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
A	2014	Still	Pinot Gris	1	1	4	6	6	1	5	4			4	2	1	6	7	7
A	2014	Still	Pinot Gris	9	1	1	5	4	7	4	1	4		7	3	2	7	6	5
A	2014	Still	Pinot Gris	12	2	2	5	2	1	1	7	4		3	5	3	5	6	7
A	2014	Still	Pinot Gris	7	2	3		6	1	7	1	8		6	6	4	7	5	6
A	2014	Still	Pinot Gris	10	1	4	6	7	4	8	1	4		9	6	3	7	5	5
A	2014	Still	Pinot Gris	14	2	1	3	6	6	3	4	5		2	2	2	5	3	4
B	2014	Still	Riesling	6	2	6	7	0	6	3	0	3		7	0	5	5	8	6
B	2014	Still	Riesling	5	1	6	5	1	2	6	2	5		5	1	1	5	6	6
B	2014	Still	Riesling	13	2	6	4	0	0	7	7	3		3	7	2	1	3	2
B	2014	Still	Riesling	8	2	3	5	2	4	4	7	5		6	4	3	6	4	4
B	2014	Still	Riesling	11	2	2	2	0	0	1	0	1		6	1	1	5	5	5
B	2014	Still	Riesling	3	2	2	2	7	2	6	2	5		3	1	1	2	3	3
B	2014	Still	Riesling	4	1	4	3	4	3	1	4	6		6	5	3	6	6	7
B	2014	Still	Riesling	4	2	5	7	6	3	7	3	6		4	1	2	4	5	6
B	2014	Still	Riesling	3	1	3	6	6	6	8	4	6		3	2	2	2	3	3
B	2014	Still	Riesling	5	2	5	6	3	5	7	7	2		2	5	8	8	4	3
B	2014	Still	Riesling	7	1	5	5	6	4	0	2	7		6	4	4	2	8	6
B	2014	Still	Riesling	10	2	6	4	4	2	0	2	4		4	2	8	7	3	4
B	2014	Still	Riesling	2	1	5	4	3	4	5	5			7	2	4	5	5	5
B	2014	Still	Riesling	1	2	4	5	3	4	1	2	4		6	1	2	5	5	5
B	2014	Still	Riesling	6	1	4	6	5	3	5	3	5		7	1	5	5	5	5
B	2014	Still	Riesling	9	2	4	7	8	2	2	1	6		8	0	2	6	6	6
B	2014	Still	Riesling	8	1	3	3	3	5	5	2	6		8	1	3	8	7	6
B	2014	Still	Riesling	2	2	5	7	6	2	8	6	5		5	3	6	6	6	6
B	2014	Still	Riesling	1	1	6	5	6	2	4	2	6		7	1	2	7	4	6
B	2014	Still	Riesling	9	1	3	5	6	5	5	3	5		7	2	3	7	6	6
B	2014	Still	Riesling	12	2	3	4	1	1	1	7	3		5	2	7	3	2	1
B	2014	Still	Riesling	7	2	6	3	1	1	6	2	3		7	1	5	8	2	3
B	2014	Still	Riesling	10	1	5	4	5	6	8	1	3		7	4	4	9	7	7
B	2014	Still	Riesling	14	2	3	3	2	3	2	3	3		5	4	5	2	3	4
C	2014	Still	Pinot Gris	6	2	4	6	5	1	0	0	2		5	2	6	5	3	3
C	2014	Still	Pinot Gris	5	1	3	3	0	3	0	9	2		8	2	5	5	2	2
C	2014	Still	Pinot Gris	13	2	3	2	1	0	4	7	1		6	4	1	1	3	3
C	2014	Still	Pinot Gris	8	2	4	3	2	2	6	5	3		3	5	2	6	5	4
C	2014	Still	Pinot Gris	11	2	2	5	2	3	1	0	4		6	1	1	5	5	5
C	2014	Still	Pinot Gris	3	2	1	5	2	2	2	8	2		5	2	1	7	6	5

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
C	2014	Still	Pinot Gris	4	1	3	3	3	3	3	2	6		2	4	3	4	3	5
C	2014	Still	Pinot Gris	4	2	2	7	2	8	2	1	7		4	1	2	4	5	7
C	2014	Still	Pinot Gris	3	1	3	2	3	3	1	1	2		3	2	2	3	3	3
C	2014	Still	Pinot Gris	5	2	3	10	8	8	5	2	7		5	7	9	8	7	8
C	2014	Still	Pinot Gris	7	1	6	6	5	5	3	8	4		7	4	4	3	4	5
C	2014	Still	Pinot Gris	10	2	2	7	0	3	0	0	5		4	4	0	7	6	6
C	2014	Still	Pinot Gris	2	1	3	3	3	3	4	4	4		6	2	2	6	5	5
C	2014	Still	Pinot Gris	1	2	4	7	6	7	2	1	6		3	4	1	5	5	5
C	2014	Still	Pinot Gris	6	1	3	4	3	6	1	3	3		4	3	3	4	4	4
C	2014	Still	Pinot Gris	9	2	2	5	6	5	2	1	7		6	0	3	6	6	7
C	2014	Still	Pinot Gris	8	1	3	7	4	1	5	7	3		4	5	3	6	6	5
C	2014	Still	Pinot Gris	2	2	5	5	7	7	4	3	7		5	3	2	7	6	6
C	2014	Still	Pinot Gris	1	1	4	5	4	1	4	5	6		5	3	2	4	6	6
C	2014	Still	Pinot Gris	9	1	3	7	5	8	2	0	6		8	3	1	5	5	6
C	2014	Still	Pinot Gris	12	2	3	3	1	3	5	2	3		2	4	2	4	4	5
C	2014	Still	Pinot Gris	7	2	3	2	1	4	4	4	2		7	2	6	8	3	3
C	2014	Still	Pinot Gris	10	1	4	6	7	5	8	2	5		6	7	1	7	6	7
C	2014	Still	Pinot Gris	14	2	1	6	2	2	4	3	2		3	2	2	2	2	2
D	2014	Still	Pinot Gris	6	2	5	3	0	4	0	4	1		6	0	9	5	1	1
D	2014	Still	Pinot Gris	5	1	4	4	1	1	5	4	5		7	0	4	6	2	2
D	2014	Still	Pinot Gris	13	2	2	4	0	0	0	0	0		6	4	7	1	1	1
D	2014	Still	Pinot Gris	8	2	4	5	4	5	3	2	4		5	3	4	6	4	4
D	2014	Still	Pinot Gris	11	2	2	4	3	1	2	0	4		6	0	2	4	4	5
D	2014	Still	Pinot Gris	3	2	2	3	3	2	6	6	3		5	1	6	7	6	4
D	2014	Still	Pinot Gris	4	1	2	6	3	6	3	5	7		5	3	3	4	8	7
D	2014	Still	Pinot Gris	4	2	2	5	3	7	2	0	7		3	1	2	4		5
D	2014	Still	Pinot Gris	3	1	3	1	2	3	3	3	2		2	2	1	3	2	2
D	2014	Still	Pinot Gris	5	2	3	6	3	7	7	7	4		5	6	8	8	4	5
D	2014	Still	Pinot Gris	7	1	3	5	4	6	2	2	5		8	6	6	8	7	8
D	2014	Still	Pinot Gris	10	2	3	7	6	7	0	0	6		3	3	4	6	4	5
D	2014	Still	Pinot Gris	2	1	3	3	3	1	5	4	4		7	2	1	6	4	4
D	2014	Still	Pinot Gris	1	2	4	5	5	6	1	1	5		3	3	1	6	6	6
D	2014	Still	Pinot Gris	6	1	3	4	2	5	3	3	4		5	3	4	5	4	4
D	2014	Still	Pinot Gris	9	2	2	4	7	2	2	3	3		6	2	2	6	5	4
D	2014	Still	Pinot Gris	8	1	2	4	2	1	6	6	2		6	3	3	6	6	4
D	2014	Still	Pinot Gris	2	2	5	6	8	4	2	6	3		4	4	7	7	5	3

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
D	2014	Still	Pinot Gris	1	1	4	3	5	2	5	3	6		6	1	2	5	4	4
D	2014	Still	Pinot Gris	9	1	2	4	6	3	2	0	5		8	3	2	8	7	6
D	2014	Still	Pinot Gris	12	2	3	5	7	2	1	1	8		5	4	4	5	5	5
D	2014	Still	Pinot Gris	7	2	2	4	1	0	4	0	2		6	3	3	8	7	7
D	2014	Still	Pinot Gris	10	1	4	4	6	6	3	2	5		7	6	6	6	4	4
D	2014	Still	Pinot Gris	14	2	1	1	0	0	0	0	1		3	3	2	4	3	3
G	2014	Still	Riesling	6	2	5	7	2	0	4	0	4		7	2	1	8	8	6
G	2014	Still	Riesling	5	1	6	4	1	1	9	0	4		5	0	2	8	8	7
G	2014	Still	Riesling	13	2	3	7	5	7	2	0	5		7	2	3	3	5	5
G	2014	Still	Riesling	8	2	4	4	3	7	3	2	7		5	7	3	8	8	8
G	2014	Still	Riesling	11	2		1	2	1	0	0	3		5	1	1	5	6	6
G	2014	Still	Riesling	3	2	3	3	6	3	5	2	3		8	1	2	8	5	6
G	2014	Still	Riesling	4	1	7	2	6	3	2	2	1		6	3	4	8	7	6
G	2014	Still	Riesling	4	2	5	6	4		7	3	7		4	4	2	4	5	6
G	2014	Still	Riesling	3	1	5	4	6	6	7	5	5		3	3	3	5	5	6
G	2014	Still	Riesling	5	2	6	3	6	5	5	7	7		3	8	8	9	6	8
G	2014	Still	Riesling	7	1	7	4	6	3	6	4	3		6	4	4	4	6	6
G	2014	Still	Riesling	10	2	7	4	2	5	1	0	5		5	3	0	4	6	6
G	2014	Still	Riesling	2	1	7	5	3	4	6	5	5		8	2	2	6	6	5
G	2014	Still	Riesling	1	2	5	5	1	4	5	3	5		6	2	1	6	6	6
G	2014	Still	Riesling	6	1	6	6	5	3	6	2	6		8	1	4	4	5	6
G	2014	Still	Riesling	9	2	5	5	6	1	5	1	5		8	1	4	6	4	5
G	2014	Still	Riesling	8	1	4	5	5	5	1	3	7		7	2	1	7	7	7
G	2014	Still	Riesling	2	2	8	6	8	6	3	4	8		6	2	3	9	9	8
G	2014	Still	Riesling	1	1	7	4	6	3	3		6		5	3	0	8	8	7
G	2014	Still	Riesling	9	1	7	8	7	6	6	2	5		7	0	6	8	5	5
G	2014	Still	Riesling	12	2	6	6	2	6	4	1	6		6	3	4	4	4	7
G	2014	Still	Riesling	7	2	7	6	4	6	5	0	8		7	5	1	8	7	7
G	2014	Still	Riesling	10	1	6	7	8	6	7	1	6		7	5	1	9	8	8
G	2014	Still	Riesling	14	2	4	7	2	2	7	3	3		2	6	3	6	4	4
H	2014	Still	Riesling	6	2	6	5	3	1	0	0	2		7	2	1	2	2	1
H	2014	Still	Riesling	5	1	5	3	2	5	4	3	6		4	1	1	5	4	5
H	2014	Still	Riesling	13	2	6	2	1	0	6	5	1		4	4	8	6	4	2
H	2014	Still	Riesling	8	2	4	3	2	6	5	3	6		5	4	2	8	6	6
H	2014	Still	Riesling	11	2	3	2	3	0	1	0	3		5	0	2	4	4	5
H	2014	Still	Riesling	3	2	2	5	8	3	6	7	6		7	1	2	7	6	4

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**Table 13**  
(continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality	
H	2014	Still	Riesling	4	1	3	3	6	4	2	1	6		3	5	6	3	3	3	
H	2014	Still	Riesling	4	2	3	6	3	5	1	1	6		6	0	4	3	4	4	
H	2014	Still	Riesling	3	1	4	3	5	5	3	5	4		3	2	2	3	3	4	
H	2014	Still	Riesling	5	2	3	6	8	3	0	0	7		6	4	8	8	5	6	
H	2014	Still	Riesling	7	1	4	7	4	8	2	2	7		7	3	7	7	7	9	
H	2014	Still	Riesling	10	2	4	4	6	2	0	3	4		2	4	4	6	5	5	
H	2014	Still	Riesling	2	1	5	4	2	1	6	3	4		7	2	2	5	6	5	
H	2014	Still	Riesling	1	2	5	5	1	5	5	2	6		6	2	0	6	6	6	
H	2014	Still	Riesling	6	1	4	7	4	7	3	4	5		7	1	4	5	5	5	
H	2014	Still	Riesling	9	2	4	3	3	1	2	2	3		7	0	4	6	4	4	
H	2014	Still	Riesling	8	1	4	6	4	5	2	2	7		8	1	5	7	6	6	
H	2014	Still	Riesling	2	2	3	3	6	2	2	7	3		6	0	7	3	3	3	
H	2014	Still	Riesling	1	1	5	6	4	3	7	2	4		7	0	0	7	6	4	
H	2014	Still	Riesling	9	1	4	7	7	5	4	6	4		8	0	6	7	3	4	
H	2014	Still	Riesling	12	2	3	4	5	3	1	1	6		4	4	6	3	3	3	
H	2014	Still	Riesling	7	2	3	5	1	5	5	1	6		9	1	6	8	2	4	
H	2014	Still	Riesling	10	1	3	3	8	4	8	4	5		5	5	5	6	4	7	
H	2014	Still	Riesling	14	2	3	5	3	2	4	4	4		2	2	2	2	2	3	
I	2014	Spark	Riesling	6	2	4	4	5	8	2	3	6	8		5	2	4	3	5	5
I	2014	Spark	Riesling	6	2	5	8	7	4	0	0	5	7		8	1	1	6	6	6
I	2014	Spark	Riesling	5	1	5	6	1	4	4	0	2	8		6	1	3	3	2	2
I	2014	Spark	Riesling	2	2	6	7	0	0	7	6	7	8		7	7	7	2	6	6
I	2014	Spark	Riesling	13	2	3	7	3	3	2	5	3	3		10	0	10	4	1	1
I	2014	Spark	Riesling	8	2	2	6	1	5	2	2	5	5		4	0	0	5	7	7
I	2014	Spark	Riesling	8	2	4	8				0	4			9	2	8	5	3	2
I	2014	Spark	Riesling	11	2	2	6	1	3	0	0	4	0		7	0	3	2	2	2
I	2014	Spark	Riesling	4	2	4	7	0	5	7	0	3	3		8	1	4	2	1	1
I	2014	Spark	Riesling	3	2	3	7	4	7	7	1	8	8		8	2	2	8	8	7
I	2014	Spark	Riesling	4	1	2	5	2	2	2	6	2	7		3	2	5	4	2	2
I	2014	Spark	Riesling	4	2	3	5	4	0	2	3	3	6		5	0	3	4	4	4
I	2014	Spark	Riesling	3	1	3	3	2	2	5	8	2	4		3	2	6	2	3	4
I	2014	Spark	Riesling	5	2	4	4	7	2	0	7	6	7		6	2	5	9	6	6
I	2014	Spark	Riesling	7	1	3	3	2	2	2	7	3	7		8	1	6	3	5	3
I	2014	Spark	Riesling	10	2	6	4	4	6	0	0	5	6		3	5	4	2	5	7
I	2014	Spark	Riesling	7	2	4	3	2	0	6	3	2	7		9	0	6	2	2	2
I	2014	Spark	Riesling	11	2	2	6	6	3	4	7	6	8		8	3	3	8	5	6

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
I	2014	Spark	Riesling	2	1	4	3	2	2	6	5	3		6	3	4	5	5	5
I	2014	Spark	Riesling	1	2	3	6	6	7	2	2	7	6	5	0	3	5	6	6
I	2014	Spark	Riesling	6	1	4	5	2	5	4	7	5	4	8	1	5	3	3	3
I	2014	Spark	Riesling	9	2	4	4	0	0	0	0	1	2	8	0	2	4	2	2
I	2014	Spark	Riesling	8	1	2	3	2	1	6	7	3	5	8	0	2	4	3	3
I	2014	Spark	Riesling	2	2	4	8	7	7	1	7	3	7	7	1	8	3	3	3
I	2014	Spark	Riesling	1	2	4	9	0	0	0	0	1	6	2	2	6	8	1	2
I	2014	Spark	Riesling	5	2	3	5	4	4	3	7	5	9	5	4	6	3	4	4
I	2014	Spark	Riesling	1	1	4	6	1	1	5	8	2	8	7	0	1	6	4	2
I	2014	Spark	Riesling	9	1	3	7	1	9	2	4	2	8	9	2	5	3	2	3
I	2014	Spark	Riesling	12	2	1	4	6	3	1	1	6	4	4	2	1	5	6	6
I	2014	Spark	Riesling	10	2	3	4	1	1	5	2	2	6	6	3	8	4	3	2
I	2014	Spark	Riesling	3	2	2	4	6	6	1	0	6	8	8	5	3	5	6	7
I	2014	Spark	Riesling	7	2	4	7	0	0	1	1	0	2	6	1	5	3	1	1
I	2014	Spark	Riesling	10	1	4	5	2	2	6	2	7	5	7	2	2	5	5	5
I	2014	Spark	Riesling	14	2	5	6	5	7	3	6	7	5	3	2	7	7	3	4
I	2014	Spark	Riesling	9	2	4	6	0	0	6	0	7	7	7	3	6	7	6	6
Reference pinot gris	2014	Still	Pinot Gris	6	2	4	7	2	4	2	1	6		6	1	6	6	3	4
Reference pinot gris	2014	Still	Pinot Gris	5	1	5	4	2	0	4	6	4		5	3	4	4	3	4
Reference pinot gris	2014	Still	Pinot Gris	13	2	3	5	1	1	2	2	1		4	4	6	0	0	0
Reference pinot gris	2014	Still	Pinot Gris	8	2	4	3	3	2	6	1	6		4	4	1	5	6	6
Reference pinot gris	2014	Still	Pinot Gris	11	2	2	4	2	1	0	0	3		4	1	1	4	5	6
Reference pinot gris	2014	Still	Pinot Gris	3	2	2	2	2	1	3	6	2		2	3	1	6	4	3
Reference pinot gris	2014	Still	Pinot Gris	4	1	3	4	3	6	3	6	6		3	5	4	7	7	7
Reference pinot gris	2014	Still	Pinot Gris	4	2	3	5	3	3	3	1	3		5	3	2	5	5	5
Reference pinot gris	2014	Still	Pinot Gris	3	1	4	2	5	4	3	3	4		3	4	2	4	4	4

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**Table 13**  
(continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference pinot gris	2014	Still	Pinot Gris	5	2		7	10	10	7	0	9		4	6	7	7	8	7
Reference pinot gris	2014	Still	Pinot Gris	7	1	4	8	7	5	2	3	7		3	6	7	8	5	6
Reference pinot gris	2014	Still	Pinot Gris	10	2	2	7	8	3	4	0	7		6	2	0	7	7	8
Reference pinot gris	2014	Still	Pinot Gris	2	1	3	4	3	2	5	5	4		7	2	4	7	4	4
Reference pinot gris	2014	Still	Pinot Gris	1	2	5	7	6	6	0	1	6		1	4	0	5	5	5
Reference pinot gris	2014	Still	Pinot Gris	6	1	4	5	3	4	2	2	4		5	3	3	4	4	4
Reference pinot gris	2014	Still	Pinot Gris	9	2	2	3	7	0	2	1	3		7	1	4	5	4	4
Reference pinot gris	2014	Still	Pinot Gris	8	1	3	3	4	2	7	6	4		5	5	4	7	7	6
Reference pinot gris	2014	Still	Pinot Gris	2	2	2	3	6	3	5	6	3		6	4	6	7	3	3
Reference pinot gris	2014	Still	Pinot Gris	1	1	4	6	3	1	2	4	4		4	3	1	5	5	5
Reference pinot gris	2014	Still	Pinot Gris	9	1	4	5	7	4	4	0	6		7	4	2	7	6	6
Reference pinot gris	2014	Still	Pinot Gris	12	2	4	7	5	3	1	1	7		2	4	1	5	6	6
Reference pinot gris	2014	Still	Pinot Gris	7	2	2	2	0	0	6	1	3		8	4	3	7	5	6
Reference pinot gris	2014	Still	Pinot Gris	10	1	4	4	7	9	4	1	7		7	8	1	7	7	8
Reference pinot gris	2014	Still	Pinot Gris	14	2	1	4	4	3	4	4	3		2	2	1	4	3	3
Reference riesling	2014	Still	Riesling	6	2	6	7	1	3	7	0	7		6	3	5	7	5	5
Reference riesling	2014	Still	Riesling	5	1	8	8	0	6	9	0	9		7	0	7	8	8	8

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference riesling	2014	Still	Riesling	13	2	8	6	2	4	3	3	3		6	1	4	0	3	3
Reference riesling	2014	Still	Riesling	8	2	5	6	6	8	1	1	9		4	5	2	7	9	9
Reference riesling	2014	Still	Riesling	11	2	6	4	2	1	0	0	4		7	0	4	3	3	3
Reference riesling	2014	Still	Riesling	3	2	7	8	4	9	4	2	7		2	1	2	7	4	5
Reference riesling	2014	Still	Riesling	4	1	8	5	5	6	8	1	8		5	2	2	8	6	7
Reference riesling	2014	Still	Riesling	4	2	4	7	3	7	4	1	7		6	0	5	4	4	4
Reference riesling	2014	Still	Riesling	3	1	6	7	7	7	9	5	8		6	4	5	6	8	7
Reference riesling	2014	Still	Riesling	5	2	8	8	9	6	0	6	8		2	3	8	8	6	7
Reference riesling	2014	Still	Riesling	7	1	7	8	7	3	4	2	7		6	4	6	6	5	8
Reference riesling	2014	Still	Riesling	10	2	8	6	3	7	0	0	7		4	2	5	4	3	5
Reference riesling	2014	Still	Riesling	2	1	7	4	3	2	6	4	4		7	2	4	6	5	5
Reference riesling	2014	Still	Riesling	1	2	6	8	4	5	3	0	8		5	2	1	6	6	7
Reference riesling	2014	Still	Riesling	6	1	6	7	5	3	7	3	7		5	1	2	4	5	5
Reference riesling	2014	Still	Riesling	9	2	7	8	9	2	1	1	6		6	0	4	5	4	5
Reference riesling	2014	Still	Riesling	8	1	7	7	6	4	2	1	9		8	0	4	8	7	8
Reference riesling	2014	Still	Riesling	2	2	8	6	7	7	7	2	7		5	1	2	8	8	8
Reference riesling	2014	Still	Riesling	1	1	8	8	6	8	1	1	8		7	3	0	7	8	8

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**Table 13**  
(continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference riesling	2014	Still	Riesling	9	1	7	7	3	7	3	4	6		6	1	6	6	3	5
Reference riesling	2014	Still	Riesling	12	2	7	6	1	6	1	6	2		2	1	1	1	1	1
Reference riesling	2014	Still	Riesling	7	2	8	7	2	7	7	0	7		9	2	1	9	5	4
Reference riesling	2014	Still	Riesling	10	1	8	6	7	8	6	1	8		2	7	4	5	7	9
Reference riesling	2014	Still	Riesling	14	2	8	7	2	5	6	2	5		2	4	2	4	4	5
Reference sparkling wine	2014	Spark	Riesling	6	2	6	6	2	4	0	0	5	7	8	1	1	4	4	5
Reference sparkling wine	2014	Spark	Riesling	5	1	7	7	6	1	2	4	5	8	8	0	1	2	2	3
Reference sparkling wine	2014	Spark	Riesling	13	2	6	4	0	0	0	0	0	3	9	1	8	2	1	2
Reference sparkling wine	2014	Spark	Riesling	8	2	4	4	3	5	6	1	5	2	8	1	2	6	4	4
Reference sparkling wine	2014	Spark	Riesling	11	2	4	4	2	1	1	0	2	7	6	0	2	5	4	4
Reference sparkling wine	2014	Spark	Riesling	3	2	6	3	3	5	2	6	3	6	7	2	3	7	6	4
Reference sparkling wine	2014	Spark	Riesling	4	1	7	7	7	6	3	1	8	8	5	1	1	7	8	8
Reference sparkling wine	2014	Spark	Riesling	4	2	4	7	0	0	0	4	0	5	5	0	5	3	3	1

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference sparkling wine	2014	Spark	Riesling	3	1	6	7	4	3	4	6	5	4	5	4	3	6	6	6
Reference sparkling wine	2014	Spark	Riesling	5	2	8	8	5	2	5	10	1	4	9	5	3	5	4	4
Reference sparkling wine	2014	Spark	Riesling	7	1	7	6	2	5	2	4	4	7	7	3	3	3	2	6
Reference sparkling wine	2014	Spark	Riesling	10	2	8	6	1	6	0	0	5	7	5	1	4	5	2	3
Reference sparkling wine	2014	Spark	Riesling	2	1	6	4	3	3	5	6	4	3	6	3	3	4	4	4
Reference sparkling wine	2014	Spark	Riesling	1	2	7	8	5	8	3	5	6	5	6	0	1	5	5	6
Reference sparkling wine	2014	Spark	Riesling	6	1	6	7	4	7	5	4	7	5	6	1	4	4	5	5
Reference sparkling wine	2014	Spark	Riesling	9	2	2	6		1	5	2	5	2	9	0	3	5	5	5
Reference sparkling wine	2014	Spark	Riesling	8	1	4	5	6	7	2	2	7	4	6	0	4	6	7	7
Reference sparkling wine	2014	Spark	Riesling	2	2	7	6	7	3	2	6	6	4	7	1	5	3	4	6

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference sparkling wine	2014	Spark	Riesling	1	1	8	4	6	1	6	5	4	5	8	1	2	5	4	4
Reference sparkling wine	2014	Spark	Riesling	9	1	6	6	6	4	2	3	6	8	7	1	3	6	4	4
Reference sparkling wine	2014	Spark	Riesling	12	2	3	6	2	1	4	7	1	5	6	2	7	4	4	3
Reference sparkling wine	2014	Spark	Riesling	7	2	6	3	1	1	4	1	6	6	8	2	0	7	5	4
Reference sparkling wine	2014	Spark	Riesling	10	1	7	8	4	0	5	5	3	5	5	2	1	5	3	8
Reference sparkling wine	2014	Spark	Riesling	14	2	7	4	7	3	2	4	3	8	4	3	4	5	4	3
A	2015	Still	Pinot Gris	7	2	4	7	2	3	2	4	5		2	5	2	7	5	5
A	2015	Still	Pinot Gris	2	2	4	4	2	1	0	5	7		6	7	4	7	7	7
A	2015	Still	Pinot Gris	6	1	4	7	1	6	0	0	4		2	1	3	6	4	5
A	2015	Still	Pinot Gris	4	2	1	3	8	7	3	3	7		3	8	6	3	7	7
A	2015	Still	Pinot Gris	13	1	4	6	0	2	5	4	2		6	5	0	0	1	4
A	2015	Still	Pinot Gris	8	1	3	2	4	2	4	1	3		3	4	4	6	5	5
A	2015	Still	Pinot Gris	11	1	2	5	2	2	1	0	4		4	3	2	4	4	4
A	2015	Still	Pinot Gris	11	2		6	6	6	7	1	7		2	5	2	6	5	5
A	2015	Still	Pinot Gris	9	2	2	5	6	9	1	0	6		1	4	0	3	3	4
A	2015	Still	Pinot Gris	3	1	2	3	3	6	3	2	5		4	3	2	7	6	6
A	2015	Still	Pinot Gris	4	1	3	8	3	5	1	0	7		3	2	0	3	6	6
A	2015	Still	Pinot Gris	5	1	5	8	7	10	2	0	6		3	8	1	6	7	7
A	2015	Still	Pinot Gris	10	1	3	7	6	3	1	2	5		2	7	0	6	5	5
A	2015	Still	Pinot Gris	1	2	4	4	4	5	0	0	5		3	4	0	6	5	5
A	2015	Still	Pinot Gris	1	1	4	7	6	7	2	3	5		2	4	2	7	7	6
A	2015	Still	Pinot Gris	5	2	3	6	5	8	1	2	7		4	4	1	8	7	7
A	2015	Still	Pinot Gris	9	1	2	4	3	2	4	3	5		4	4	1	6	6	6

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
A	2015	Still	Pinot Gris	2	1	5	7	7	8	2	1	8		5	2	2	7	7	7
A	2015	Still	Pinot Gris	8	2	2	8	6	8	4	1	8		6	8	2	2	8	8
A	2015	Still	Pinot Gris	12	1	4	5	1	1	7	1	2		2	7	1	6	2	2
A	2015	Still	Pinot Gris	3	2	1	8	8	8	4	2	7		7	8	1	6	7	7
A	2015	Still	Pinot Gris	6	2	2	6	2	5	7	0	3		6	6	2	7	6	5
A	2015	Still	Pinot Gris	7	1	3	3	3	2	3	1	2		2	7	5	7	7	6
A	2015	Still	Pinot Gris	10	2	2	7	5	4	3	4	7		4	4	1	7	7	7
A	2015	Still	Pinot Gris	14	1	3	6	5	4	3	4	5		3	7	3	4	4	4
B	2015	Still	Riesling	7	2	5	5	3	3	1	6	4		4	2	2	6	4	4
B	2015	Still	Riesling	2	2	3	2		2	0	8	2		4	6	9	8	2	2
B	2015	Still	Riesling	6	1	3	5	4	2	1	1	6		2	0	5	5	7	7
B	2015	Still	Riesling	4	2	2		3	2	9	1	2		6	6	2	2	6	7
B	2015	Still	Riesling	13	1	5	6	5	6	2	0	5		6	1	8	1	2	3
B	2015	Still	Riesling	8	1	4	3	4	5	4	1	5		4	3	3	6	4	5
B	2015	Still	Riesling	11	1	3	4	1	0	1	0	2		5	1	2	6	5	5
B	2015	Still	Riesling	11	2	4	3	2	2	6	1	5		9	1	3	5	4	4
B	2015	Still	Riesling	9	2	3	2	2	2	4	5	2		4	5	3	8	6	4
B	2015	Still	Riesling	3	1	3	2	4	1	1	1	2		3	3	1	7	6	5
B	2015	Still	Riesling	4	1	4	5	1	4	3	1	5		3	1	1	5	5	6
B	2015	Still	Riesling	5	1	6	7	9	6	8	2	8		7	5	7	9	9	8
B	2015	Still	Riesling	10	1	6	3	2	2	1	0	3		2	2	8	6	2	3
B	2015	Still	Riesling	1	2	4	6	3	7	1	2	6		5	0	1	5	5	5
B	2015	Still	Riesling	1	1	4	4	5	3	4	2	5		4	0	2	5	5	5
B	2015	Still	Riesling	5	2	3	4	7	3	1	3	4		7	1	2	6	6	5
B	2015	Still	Riesling	9	1	3	4	3	1	0	3	3		7	1	3	6	6	5
B	2015	Still	Riesling	2	1	6	5	8	5	2	2	7		3	3	5	7	7	7
B	2015	Still	Riesling	8	2	4	7	6	6	6	0	8		6	4	5	6	6	7
B	2015	Still	Riesling	12	1	4	5	4	3	0	0	6		2	3	2	2	4	4
B	2015	Still	Riesling	3	2	1	7	7	6	7	2	6		7	3	1	5	8	7
B	2015	Still	Riesling	6	2	1	3	7	5	5	1	5		6	2	0	8	6	7
B	2015	Still	Riesling	7	1	5	3	3	2	6	0	4		7	6	6	8	6	7
B	2015	Still	Riesling	10	2	4	2	5	3	5	0	3		4	5	1	6	4	3
B	2015	Still	Riesling	14	1	3	3	0	0	2	1	2		3	3	1	2	3	2
C	2015	Still	Pinot Gris	7	2	4	5	4	6	1	1	6		4	6	1	5	6	6
C	2015	Still	Pinot Gris	2	2	4	4	2	2	0	6	3		3	8	7		3	3

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**Table 13**  
(continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
C	2015	Still	Pinot Gris	6	1	4	3	3	1	0	0	3		1	4	1	1	1	2
C	2015	Still	Pinot Gris	4	2	2	2	8	8	1	8	1		7	7	7	2	6	7
C	2015	Still	Pinot Gris	13	1	3	5	2	2	0	0	3		3	6	2	0	1	3
C	2015	Still	Pinot Gris	8	1	3	6	6	6	1	2	8		1	8	1	8	8	8
C	2015	Still	Pinot Gris	11	1	2	2	1	0	1	0	2		4	3	1	4	3	3
C	2015	Still	Pinot Gris	11	2	4	6	3	3	7	2	6		1	6	3	7	7	7
C	2015	Still	Pinot Gris	9	2	1	1	4	1	1	1	2		1	7	2	9	6	3
C	2015	Still	Pinot Gris	3	1	1	1	1	2	2	1	2		1	7	2	6	2	2
C	2015	Still	Pinot Gris	4	1	3	3	3	0	1	0	3		1	3	2	3	2	2
C	2015	Still	Pinot Gris	5	1	5	3	8	4	5	7	5		2	8	4	7	6	6
C	2015	Still	Pinot Gris	10	1	3	6	3	7	2	0	6		1	7	0	0	1	2
C	2015	Still	Pinot Gris	1	2	4	3	2	3	0	0	3		3	5	2	5	4	4
C	2015	Still	Pinot Gris	1	1	4	7	3	8	1	0	7		1	6	0	7	7	7
C	2015	Still	Pinot Gris	5	2	2	3	5	0	0	3	3		5	6	2	6	5	4
C	2015	Still	Pinot Gris	9	1	2	3	7	2	2	2	5		2	5	1	7	7	6
C	2015	Still	Pinot Gris	2	1	3	3	6	3	5	3	4		3	7	2	4	1	1
C	2015	Still	Pinot Gris	8	2	2	8	8	4	8	1	7		4	8	3	4	5	5
C	2015	Still	Pinot Gris	12	1	2	4	2	0	0	2	4		2	7	1	3	4	4
C	2015	Still	Pinot Gris	3	2	0	9	4	9	5	0	8		5	9	0	5	7	8
C	2015	Still	Pinot Gris	6	2	1	2	3	0	3	0	3		2	7	6	2	2	2
C	2015	Still	Pinot Gris	7	1	3	4	4	4	3	0	8			6	4	6	2	2
C	2015	Still	Pinot Gris	10	2	2	2	3	2	4	0	2		0	7	0	3	5	3
C	2015	Still	Pinot Gris	14	1	1	1	0	0	1	1	1		1	4	1	2	2	2
D	2015	Still	Pinot Gris	7	2	3	7	7	2	4	3	6		2	8	2	8	8	8
D	2015	Still	Pinot Gris	2	2	4	4	6	5	0	2	6		2	8	1	8	2	4
D	2015	Still	Pinot Gris	6	1	4	4	2	1	0	0	3		1	2	4	3	3	3
D	2015	Still	Pinot Gris	4	2	1	2	4	6	6	2	4		9	2	9	2	1	1
D	2015	Still	Pinot Gris	13	1	2	4	1	0	3	4	1		6	4	3	1	0	0
D	2015	Still	Pinot Gris	8	1	3	7	6	7	2	3	9		2	7	1	7	7	7
D	2015	Still	Pinot Gris	11	1	2	0	0	0	0	0	0		3	3	3	4	3	3
D	2015	Still	Pinot Gris	11	2	5	1	1	2	6	1	2		1	8	4	7	7	7
D	2015	Still	Pinot Gris	9	2	2	2	3	3	0	4	2		1	6	0	4	2	2
D	2015	Still	Pinot Gris	3	1	1	1	2	5	2	1	2		2	4	2	7	3	2
D	2015	Still	Pinot Gris	4	1	3	4	3	0	1	0	3		1	3	1	3	2	2
D	2015	Still	Pinot Gris	5	1	4	9	10	10	0	5	5		3	8	6	8	7	4
D	2015	Still	Pinot Gris	10	1	2	6	3	4	2	2	4		1	2	8	2	1	2

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
D	2015	Still	Pinot Gris	1	2	4	4	5	4	0	0	4		3	5	1	5	4	4
D	2015	Still	Pinot Gris	1	1	4	6	4	6	2	3	5		2	6	3	6	6	6
D	2015	Still	Pinot Gris	5	2	2	3	2	2	3	3	3		4	5	1	3	4	3
D	2015	Still	Pinot Gris	9	1	2	3	6	7	0	0	6		3	4	0	7	6	6
D	2015	Still	Pinot Gris	2	1	3	6	8	3	2	1	6		2	7	2	6	2	3
D	2015	Still	Pinot Gris	8	2	2	7	7	9	4	2	7		4	8	2	4	7	7
D	2015	Still	Pinot Gris	12	1	2	3	4	1	0	2	5		1	9	1	1	2	2
D	2015	Still	Pinot Gris	3	2	1		7	8	2	0	7		6	8	2	6	7	6
D	2015	Still	Pinot Gris	6	2	1	2	5	9	6	0	6		3	5	5	6	3	3
D	2015	Still	Pinot Gris	7	1	2	6	1	4	4	0	6		2	7	5	7	5	6
D	2015	Still	Pinot Gris	10	2	2	1	3	4	2	3	3		4	7	1	5		5
D	2015	Still	Pinot Gris	14	1	1	1	0	0	0	1	1		2	5	2	4	4	3
G	2015	Still	Pinot Gris	9	2	3	9	1	1	1	1	1		3	6	2	9	7	2
G	2015	Still	Riesling	7	2	5	5	2	5	1	3	3		5	3	2	6	4	5
G	2015	Still	Riesling	2	2	4	6	2	6	0	0	3		7	4	3	7	8	6
G	2015	Still	Riesling	6	1	6	8	1	7	1	1	9		3	2	7	6	4	7
G	2015	Still	Riesling	4	2	4	7	4	8	7	2	6		8	2	9	8	3	3
G	2015	Still	Riesling	13	1	7	6	3	4	0	4	3		8	3	7	2	3	4
G	2015	Still	Riesling	8	1	4	5	6	5	3	1	8		6	5	4	5	7	8
G	2015	Still	Riesling	11	1	4	4	3	2	1	0	4		5	2	3	5	5	5
G	2015	Still	Riesling	11	2	5	7	7	6	6	4	6		8	4	6	7	7	7
G	2015	Still	Riesling	3	1	4	7	2	8	2	1	7		2	1	3	8	7	7
G	2015	Still	Riesling	4	1	4	6	3	2	3	1	5		3	1	1	5	5	7
G	2015	Still	Riesling	5	1	6	9	0	0	0	0	2		7	7	7	10	2	2
G	2015	Still	Riesling	10	1	6	4	1	3	0	3	2		3	1	7	4	2	
G	2015	Still	Riesling	1	2	4	5	3	4	2	2	5		5	2	2	6	5	5
G	2015	Still	Riesling	1	1	4	4	3	4	2	2	5		5	2	1	6	6	5
G	2015	Still	Riesling	5	2	3	6	1	7	1	1	6		6	3	1	7	7	7
G	2015	Still	Riesling	9	1	3	7	4	7	1	1	7		7	2	4	7	7	7
G	2015	Still	Riesling	2	1	8	8	7	6	8	3	7		5	1	2	7		8
G	2015	Still	Riesling	8	2	5	7	3	3	4	1	3		6	2	2	3	3	3
G	2015	Still	Riesling	12	1	4	3	5	1	0	0	6		5	3	3	4	6	6
G	2015	Still	Riesling	3	2	3	7	3	5	8	2	8		8	2	0		8	7
G	2015	Still	Riesling	6	2	4	3	3	1	7	1	4		8	5	5	7	7	7

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality	
G	2015	Still	Riesling	7	1		5	6	6	2	0	8		7	6	3	8	8	9	
G	2015	Still	Riesling	10	2	3	4	4	1	5	2	3		4	4	3	6	4	3	
G	2015	Still	Riesling	14	1	5	5	0	1	5	4	4		2	3	5	3	3	3	
H	2015	Still	Riesling	7	2	4	7	7	4	2	2	6		5	4	2	8	6	6	
H	2015	Still	Riesling	2	2	5	4	2	2	1	4	3		5	2	4	5	5	4	
H	2015	Still	Riesling	6	1	5	4	1	4	0	1	4		1	1	7	1	1	1	
H	2015	Still	Riesling	4	2	6	7	2	3	6	7	7		10	1	8	7	1	2	
H	2015	Still	Riesling	13	1	7	8	8	7	0	0	7		3	5	0	0	1	4	
H	2015	Still	Riesling	8	1	3	7	6	8	2	1	10		3	6	2	6	8	9	
H	2015	Still	Riesling	11	1	3	5	3	2	1	0	5		4	0	2	3	3	4	
H	2015	Still	Riesling	11	2	4	4	3	4	5	1	5		3	1	6	7	6	5	
H	2015	Still	Riesling	9	2	3	2	5	2	2	1	3		3	2	7	2	2	2	
H	2015	Still	Riesling	3	1	4	2	6	3	1	1	4		1	1	1	2	2	2	
H	2015	Still	Riesling	4	1	4	3	3	1	1	1	2		1	0	2	2	2	2	
H	2015	Still	Riesling	5	1	5	9	9	10	0	5	6		3	6	7	7	6	5	
H	2015	Still	Riesling	10	1	4	6	6	4	1	1	6		4	2	2	4	3	5	
H	2015	Still	Riesling	1	2	4	6	4	6	2	0	6		4	2	0	6	6	6	
H	2015	Still	Riesling	1	1	4	7	7	7	1	1	7		2	4	0	5	6	6	
H	2015	Still	Riesling	5	2	2	6	6	6	3	2	7		6	0	2	3	3	5	
H	2015	Still	Riesling	9	1	4	8	5	8	0	0	7		6	0	3	7	8	7	
H	2015	Still	Riesling	2	1	6	5	8	5	3	4	6		4	2	5	4	5	5	
H	2015	Still	Riesling	8	2	4	8	8	7	4	0	8		3	8	1	3	8	8	
H	2015	Still	Riesling	12	1	4	5	3	5	0	1	6		1	2	3	1	2	2	
H	2015	Still	Riesling	3	2	3	8	9	7	6	1	8		6	1	2	7	7	7	
H	2015	Still	Riesling	6	2	4	4	7	1	7	3	6		4	4	2	5	5	6	
H	2015	Still	Riesling	7	1	5	6	4	7	2	0	6		4	7	6	8	5	5	
H	2015	Still	Riesling	10	2	4	4	3	2	5	2	3		3	4	0	5	5	5	
H	2015	Still	Riesling	14	1	4	2	0	1	2	1	2		1	3	1	2	2	2	
I	2015	Spark	Riesling	6	2	4	6	2	2	2	4	1	6		7	2	6	4	3	
I	2015	Spark	Riesling	6	1	4	6	1	4	3	1	4	1		5	1	4	3	1	1
I	2015	Spark	Riesling	2	2	3	3	7	7	6	3	4	1		7	7	2	6	6	5
I	2015	Spark	Riesling	13	1	6	6	3	4	0	0	0	0		8	1	7	3	2	1
I	2015	Spark	Riesling	8	2	4	6	3	1	5	7	4	1		2	0	0	5	5	5
I	2015	Spark	Riesling	8	1	3	8	1	2	6	8	0	2		2	5	3	5	3	2
I	2015	Spark	Riesling	11	1	2	5	4	1	1	0	6	2		5	1	3	3	4	5
I	2015	Spark	Riesling	4	2	4	7	0	0	0	0	0	1		2	2	2	0	0	0

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
I	2015	Spark	Riesling	3	1	2	5	6	7	2	1	7	4	2	1	1	7	6	7
I	2015	Spark	Riesling	4	1	3	6	2	4	1	1	5	5	4	0	2	4	5	6
I	2015	Spark	Riesling	5	1	3	9	1	8	0	9	1	1	2	5	3	2	1	2
I	2015	Spark	Riesling	10	1	4	6	1	1	0	1	2	3	3	0	2	4	3	3
I	2015	Spark	Riesling	7	2	5	4	0	4	6	2	2	2	5	0	8		5	4
I	2015	Spark	Riesling	11	2	5	7	6	2	5	7	6	2	7	3	3	4	3	4
I	2015	Spark	Riesling	1	1	5	5	6	5	2	3	5	5	3	1	1	5	5	5
I	2015	Spark	Riesling	9	1	3	6	1	2	0	3	4	3	4	1	3	4	5	5
I	2015	Spark	Riesling	2	1	5	8	5	7	1	6	4	6	5	3	2	7	6	6
I	2015	Spark	Riesling	1	2	4	9	0	0	9	0	0	0	9	2	3	5	2	1
I	2015	Spark	Riesling	5	2	5	6	4	4	4	6	6	7	5	3	5	5	5	6
I	2015	Spark	Riesling	12	1	4	6	1	6	1	1	7	4	2	3	2	3	1	1
I	2015	Spark	Riesling	10	2	5	1	2	1	2	1	0	2	2	1	3	2	0	1
I	2015	Spark	Riesling	3	2	3	4	1	2	4	0	5	6	7	6	5	7	6	5
I	2015	Spark	Riesling	7	1	3		4	2	6	1	2	1	8	4	7	4	2	2
I	2015	Spark	Riesling	14	1	4	2	0	2	2	3	2	2	4	3	5	3	3	2
I	2015	Spark	Riesling	9	2	6	4	0	0	0	0	3	3	4	3	3	5	4	4
Reference pinot gris	2015	Still	Pinot Gris	7	2	4	6	4	2	3	3	5		4	3	2	8	7	7
Reference pinot gris	2015	Still	Pinot Gris	7	2	4	6	4	2	3	3	5		4	3	2	8	7	7
Reference pinot gris	2015	Still	Pinot Gris	2	2	5	7	3	9	0	0	7		5	5	4	7	7	7
Reference pinot gris	2015	Still	Pinot Gris	2	2	5	7	3	9	0	0	7		5	5	4	7	7	7
Reference pinot gris	2015	Still	Pinot Gris	6	1	5	5	4	3	1	6	2		2	1	4	4	4	4
Reference pinot gris	2015	Still	Pinot Gris	4	2	3	3	7	4	6	7	6		7	6	8	2	3	6
Reference pinot gris	2015	Still	Pinot Gris	4	2	3	3	7	4	6	7	6		7	6	8	2	3	6
Reference pinot gris	2015	Still	Pinot Gris	13	1	4	5	4	3	6	7	3		9	4	0	4	4	4
Reference pinot gris	2015	Still	Pinot Gris	8	1	3	4	5	6	1	1	7		5	5	2	6	6	6

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**Table 13**  
(continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference pinot gris	2015	Still	Pinot Gris	11	1	2	6	4	1	2	0	6		5	1	1	6	5	5
Reference pinot gris	2015	Still	Pinot Gris	11	2	4	8	7	6	7	1	9		2	4	1	6	8	8
Reference pinot gris	2015	Still	Pinot Gris	11	2	4	8	7	6	7	1	9		2	4	1	6	8	8
Reference pinot gris	2015	Still	Pinot Gris	9	2	4	3	3	2	0	0	2		4	3	1	8	6	4
Reference pinot gris	2015	Still	Pinot Gris	9	2	4	3	3	2	0	0	2		4	3	1	8	6	4
Reference pinot gris	2015	Still	Pinot Gris	3	1	3	2	5	2	5	1	3		6	1	2	8	7	7
Reference pinot gris	2015	Still	Pinot Gris	4	1	3	7	5	4	2	0	6		4	1	2	5	7	7
Reference pinot gris	2015	Still	Pinot Gris	5	1	5	9	9	6	7	0	7		8	4	5	8	8	8
Reference pinot gris	2015	Still	Pinot Gris	10	1	3	6	3	0	5	1	5		3	1	1	5	5	4
Reference pinot gris	2015	Still	Pinot Gris	1	2	5	5	4	5	0	1	5		4	2	0	5	5	5
Reference pinot gris	2015	Still	Pinot Gris	1	2	5	5	4	5	0	1	5		4	2	0	5	5	5
Reference pinot gris	2015	Still	Pinot Gris	1	1	4	6	6	7	2	2	5		5	1	3	5	5	5
Reference pinot gris	2015	Still	Pinot Gris	5	2	3	6	7	7	1	3	5		5	4	1	7	6	6
Reference pinot gris	2015	Still	Pinot Gris	5	2	3	6	7	7	1	3	5		5	4	1	7	6	6
Reference pinot gris	2015	Still	Pinot Gris	9	1	2	4	3	4	0	1	5		7	1	4	7	5	5
Reference pinot gris	2015	Still	Pinot Gris	2	1	6	3	4	3	2	4	3		7	2	3	5	6	6
Reference pinot gris	2015	Still	Pinot Gris	8	2	4	7	8	6	9	0	8		7	8	2	2	7	8
Reference pinot gris	2015	Still	Pinot Gris	8	2	4	7	8	6	9	0	8		7	8	2	2	7	8

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference pinot gris	2015	Still	Pinot Gris	12	1	4	6	7	2	1	1	7		6	3	4	5	6	5
Reference pinot gris	2015	Still	Pinot Gris	3	2	2	7	6	9	7	1	8		8	8	0	3	9	9
Reference pinot gris	2015	Still	Pinot Gris	3	2	2	7	6	9	7	1	8		8	8	0	3	9	9
Reference pinot gris	2015	Still	Pinot Gris	6	2	3	8	6	2	7	4	6		6	6	4	7	7	8
Reference pinot gris	2015	Still	Pinot Gris	6	2	3	8	6	2	7	4	6		6	6	4	7	7	8
Reference pinot gris	2015	Still	Pinot Gris	7	1	5	6	6	6	1	0	3		7	2	6	6	2	2
Reference pinot gris	2015	Still	Pinot Gris	10	2	2	5	6	7	5	3	6		3	8	1	6	6	6
Reference pinot gris	2015	Still	Pinot Gris	10	2	2	5	6	7	5	3	6		3	8	1	6	6	6
Reference pinot gris	2015	Still	Pinot Gris	14	1	3	5	3	2	1	1	3		3	5	3	2	3	3
Reference riesling	2015	Still	Riesling	7	2	6	7	6	4	2	2	7		6	1	0	6	6	7
Reference riesling	2015	Still	Riesling	7	2	6	7	6	4	2	2	7		6	1	0	6	6	7
Reference riesling	2015	Still	Riesling	2	2	4	2	7	1	0	1	6		8	2	8	8	3	4
Reference riesling	2015	Still	Riesling	2	2	4	2	7	1	0	1	6		8	2	8	8	3	4
Reference riesling	2015	Still	Riesling	6	1	6	6	0	0	8	0	8		2	1	3	2	1	3
Reference riesling	2015	Still	Riesling	4	2	8	8	4	8	8	3	4		8	8	3	7	7	7
Reference riesling	2015	Still	Riesling	4	2	8	8	4	8	8	3	4		8	8	3	7	7	7
Reference riesling	2015	Still	Riesling	13	1	6	5	2	1	2	3	2		8	2	7	3	3	2

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference riesling	2015	Still	Riesling	8	1	5	8	7	5	4	2	9		2	5	2	5	6	7
Reference riesling	2015	Still	Riesling	11	1	4	3	2	1	0	0	3		7	0	2	3	3	
Reference riesling	2015	Still	Riesling	11	2	5	8	7	6	6	4	7		7	4	8	7	6	5
Reference riesling	2015	Still	Riesling	11	2	5	8	7	6	6	4	7		7	4	8	7	6	5
Reference riesling	2015	Still	Riesling	9	2	3	2	7	5	1	1	3		3	1	7	2	3	3
Reference riesling	2015	Still	Riesling	9	2	3	2	7	5	1	1	3		3	1	7	2	3	3
Reference riesling	2015	Still	Riesling	3	1	6	8	3	8	8	2	7		5	1	3	7	7	7
Reference riesling	2015	Still	Riesling	4	1	5	8	2	7	5	1	8		4	0	3	3	3	4
Reference riesling	2015	Still	Riesling	5	1	7	8	8	9	7	4	10		5	4	3	6	7	7
Reference riesling	2015	Still	Riesling	10	1	9	8	7	8	0	3	6		2	2	5	2	3	4
Reference riesling	2015	Still	Riesling	1	2	4	7	2	6	1	0	6		5	1	0	6	6	6
Reference riesling	2015	Still	Riesling	1	2	4	7	2	6	1	0	6		5	1	0	6	6	6
Reference riesling	2015	Still	Riesling	1	1	8	7	4	6	6	1	6		3	0	0	4	5	5
Reference riesling	2015	Still	Riesling	5	2	3	8	8	6	2	0	8		6	0	3	3	5	6
Reference riesling	2015	Still	Riesling	5	2	3	8	8	6	2	0	8		6	0	3	3	5	6
Reference riesling	2015	Still	Riesling	9	1	7	8	6	7	1	0	9		7	0	4	2	2	4
Reference riesling	2015	Still	Riesling	2	1	8	8	7	7	8	2	9		4	1	2	4	5	4
Reference riesling	2015	Still	Riesling	8	2	5	8	8	6	5	0	8		5	6	3	6	8	8

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference riesling	2015	Still	Riesling	8	2	5	8	8	6	5	0	8		5	6	3	6	8	8
Reference riesling	2015	Still	Riesling	12	1	6	3	1	2	1	5	2		5	1	5	3	3	3
Reference riesling	2015	Still	Riesling	3	2	2	5	6	3	8	2	8		9	2	0	7	7	6
Reference riesling	2015	Still	Riesling	3	2	2	5	6	3	8	2	8		9	2	0	7	7	6
Reference riesling	2015	Still	Riesling	6	2	5	5	2	7	6	1	6		6	3	0	5	3	5
Reference riesling	2015	Still	Riesling	6	2	5	5	2	7	6	1	6		6	3	0	5	3	5
Reference riesling	2015	Still	Riesling	7	1			8	5	8	0	8		8	5	3	8	6	7
Reference riesling	2015	Still	Riesling	10	2	3	7	8	3	2	5	6		2	4	1	4	2	3
Reference riesling	2015	Still	Riesling	10	2	3	7	8	3	2	5	6		2	4	1	4	2	3
Reference riesling	2015	Still	Riesling	14	1	7	8	3	4	3	6	6		4	3	2	6	5	7
Reference sparkling wine	2015	Spark	Riesling	6	1	5	4	3	1	1	3	3	6	3	2	4	4	2	2
Reference sparkling wine	2015	Spark	Riesling	13	1	6	6	5	3	1	0	3	4	8	0	6	0	1	2
Reference sparkling wine	2015	Spark	Riesling	8	1	4	6	1	1	6	7	1	3	4	3	6	5	3	2
Reference sparkling wine	2015	Spark	Riesling	11	1	3	2	2	1	0	0	1	6	5	1	2	4	4	5
Reference sparkling wine	2015	Spark	Riesling	3	1	6	6	2	2	3	1	3	8	3	0	4	5	5	6

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**Table 13**  
(continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference sparkling wine	2015	Spark	Riesling	4	1	4	7	3	3	1	0	1	7	5	0	3	3	3	2
Reference sparkling wine	2015	Spark	Riesling	5	1	7	7	6	8	0	6	5	8	6	5	3	8	5	5
Reference sparkling wine	2015	Spark	Riesling	10	1	6	5	6	6	0	1	6	7	6	2	1	3	5	6
Reference sparkling wine	2015	Spark	Riesling	1	1	5	6	5	7	2	2	7	6	2	1	1	5	5	5
Reference sparkling wine	2015	Spark	Riesling	9	1	5	4	1	3	0	1	6	8	7	0	3	2	3	3
Reference sparkling wine	2015	Spark	Riesling	2	1	8	7	8	6	1	1	7	8	7	1	3	5	4	5
Reference sparkling wine	2015	Spark	Riesling	12	1	4	4	1	1	1	6	1	8	6	2	4	4	4	4
Reference sparkling wine	2015	Spark	Riesling	7	1	5		0	0	3	0	2	6	9	1	1	3	1	4
Reference sparkling wine	2015	Spark	Riesling	14	1	6	5	5	6	3	5	5	3	5	3	5	6	5	5
A	2016	Still	Pinot Gris	11	2	2	3	4	3	4	3	3		3	6	2	5	6	6
A	2016	Still	Pinot Gris	2	2	1	3	2	2	4	2	2		8	3	8	7	2	2
A	2016	Still	Pinot Gris	2	1	2	3	0	0	2	1	1		4	2	8	5	2	2
A	2016	Still	Pinot Gris	6	1	4	6	1	6	0	2	6		5	3	1	4	7	7
A	2016	Still	Pinot Gris	6	2	6	8	3	1	2	0	5		6	7	4	7	7	7
A	2016	Still	Pinot Gris	7	1	6	6	4	0	0	3	3		4	1	2	3	4	5
A	2016	Still	Pinot Gris	10	2	2	4	4	7	6	4	6		4	8	2	6	7	7
A	2016	Still	Pinot Gris	1	2	5	5	3	5	0	0	5		4	5	0	6	5	5

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
A	2016	Still	Pinot Gris	1	1	5	6	4	3	5	0	6		4	4	1	4	4	5
A	2016	Still	Pinot Gris	4	2	4	4	5	8	1	2	5		3	7	3	6	4	5
A	2016	Still	Pinot Gris	10	1	3	6	7	3	3	2	5		4	8	2	6	7	8
A	2016	Still	Pinot Gris	5	2	3	0	2	3	3		1		8	5	2	4	1	1
A	2016	Still	Pinot Gris	9	2	2	2	2	3	1	2	1		1	6	2	3	2	2
A	2016	Still	Pinot Gris	5	1	1	2	2	1	4	2	2		7	4	1	2	3	3
A	2016	Still	Pinot Gris	7	2	2	2	1	1	0	0	7		6	3	2	7	7	8
A	2016	Still	Pinot Gris	4	1	5	6	2	4	3	2	5		4	4	1	5	4	4
A	2016	Still	Pinot Gris	9	1	5	5	4	4	1	0	5		4	0	2	4	3	4
A	2016	Still	Pinot Gris	3	2	1	2	2	2	4	0	2		6	7	8	5	5	3
A	2016	Still	Pinot Gris	3	1	2	5	2	1	4	0	2		4	7	6	2	6	5
A	2016	Still	Pinot Gris	12	2	3	8	1	4	5	5	3		6	7	7	5	3	4
A	2016	Still	Pinot Gris	8	2	2	5	0	1	5	4	5		1	6	1	2	3	4
A	2016	Still	Pinot Gris	8	1	1	4	4	6	2	5	4		4	3	1	2	3	3
B	2016	Still	Riesling	11	2	1	5	3	5	6	7	6		7	4		7	7	6
B	2016	Still	Riesling	2	2	2	7	4	8	1	7	4		8	2	6	5	3	3
B	2016	Still	Riesling	2	1	3	3	8	6	2	2	4		9	6	8	9	2	2
B	2016	Still	Riesling	6	1	5	5	4	2	1	0	5		6	0	4	5	4	4
B	2016	Still	Riesling	6	2	5	6	4	0	3	0	3		8	4	9	10	2	1
B	2016	Still	Riesling	7	1	5	3	3	5	4	1	5		6	0	6	4	4	4
B	2016	Still	Riesling	10	2	4	2	6	6	5	6	6		5	4	3	4	4	4
B	2016	Still	Riesling	1	2	6	5	6	6	3	2	5		5	1	1	5	5	5
B	2016	Still	Riesling	1	1	4	7	4	6	3	0	7		6	0	0	6	6	6
B	2016	Still	Riesling	4	2	4	6	8	6	1	1	7		6	2	3	5	5	5
B	2016	Still	Riesling	10	1	4	8	8	8	2	0	9		6	4	2	7	5	7
B	2016	Still	Riesling	5	2	6	4	1	5	6	2	2		7	2	3		0	1
B	2016	Still	Riesling	9	2	4	3	1	2	2	2	2		2	1	4	3	1	2
B	2016	Still	Riesling	5	1	3	2	3	0	1	2	1		7	1	3	1	2	2
B	2016	Still	Riesling	7	2	6	3	1	2	1	1	6		7	2	1	7	7	7
B	2016	Still	Riesling	4	1	5	5	2	2	3	2	4		6	1	2	5	4	4
B	2016	Still	Riesling	9	1	4	5	4	3	4	1	4		5	0	2	5	5	5
B	2016	Still	Riesling	3	2	1	3	4	6	5	0	4		5	4	5	5	4	5
B	2016	Still	Riesling	3	1	3	7	4	2	7	0	3		7	2	2	2	5	5
B	2016	Still	Riesling	12	2	4	4	7	7	7	0	8		7	5	9	9	1	1
B	2016	Still	Riesling	8	2	3	5	4	4	2	3	4		3	2	6	5	3	3

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
B	2016	Still	Riesling	8	1	4	8	6	7	8	1	8		1	1	2	7	1	3
C	2016	Still	Pinot Gris	2	2	2	5	6	3	2	2	3		4	4	9	9	1	1
C	2016	Still	Pinot Gris	2	1	3	3	2	5	7	6	5		7	7	2	5	7	6
C	2016	Still	Pinot Gris	6	1	3	5	1	1	4	1	3		2	4	1	4	4	3
C	2016	Still	Pinot Gris	6	2	5	4	5	0	6	1	3		7	7	8	9	4	3
C	2016	Still	Pinot Gris	7	1	3	6	5	1	0	1	4		5	2	1	5	5	5
C	2016	Still	Pinot Gris	10	2	2	4	4	6	6	4	5		7	7	4	8	7	7
C	2016	Still	Pinot Gris	1	2	5	4	5	4	0	0	4		4	3	4	4	3	3
C	2016	Still	Pinot Gris	1	1	4	5	3	5	0	0	6		4	5	3	4	4	4
C	2016	Still	Pinot Gris	4	2	6	7	4	8	2	1	4		2	5	5	7	2	2
C	2016	Still	Pinot Gris	10	1	5	7	1	1	3	3	2		7	4	2	8	6	5
C	2016	Still	Pinot Gris	11	2	2		5	4	0	3	2		4	6	4	4	5	5
C	2016	Still	Pinot Gris	5	2	2	0	1	3	3	1	1		3	7	3	6	1	1
C	2016	Still	Pinot Gris	9	2	4	4	2	3	1	4	1		2	6	4	3	2	2
C	2016	Still	Pinot Gris	5	1	1	3	1	1	3	1	2		6	4	1	3	1	2
C	2016	Still	Pinot Gris	7	2	2	6	3	4	0	0			5	6	1	6	7	5
C	2016	Still	Pinot Gris	4	1	4	5	2	2	2	3	4		3	3	2	3	3	3
C	2016	Still	Pinot Gris	9	1	5	5	6	5	2	0	6		6	1	1	6	5	6
C	2016	Still	Pinot Gris	3	2	1	3	1	1	3	0	3		4	7	8	6	4	4
C	2016	Still	Pinot Gris	3	1	2	5	5	5	0	0	5		5	5	6	5	7	6
C	2016	Still	Pinot Gris	12	2	4	1	0	4	5	0	2		1	8	9	5	2	2
C	2016	Still	Pinot Gris	8	2	2	5	1	1	3	5	3		3	6	1	2	3	3
C	2016	Still	Pinot Gris	8	1	1	1	2	0	1	4	2		1	8	1	7	1	2
D	2016	Still	Pinot Gris	11	2	2	2	3	2	3	5	1		4	3	6	4	4	3
D	2016	Still	Pinot Gris	2	2	2	3	2	2	2	2	1		6	6	9	10	1	1
D	2016	Still	Pinot Gris	2	1	4	7	8	4	8	8	8		4	8	6	8	8	8
D	2016	Still	Pinot Gris	6	1	4	2	1	1	1	3	2		2	6	2	5	6	6
D	2016	Still	Pinot Gris	6	2	6	7	0	0	3	0	2		5	8	6	5	5	5
D	2016	Still	Pinot Gris	7	1	1	5	5	4	0	1	6		5	6	0	6	6	6
D	2016	Still	Pinot Gris	10	2	2	4	4	7	6	4	6		4	8	2	6	7	7
D	2016	Still	Pinot Gris	1	2	6	4	4	5	0	1	4		4	3	2	5	4	4
D	2016	Still	Pinot Gris	1	1	4	5	4	5	1	0	5		4	5	2	5	5	5
D	2016	Still	Pinot Gris	4	2	3	3	6	8	3	2	7		2	9	1	7	3	3
D	2016	Still	Pinot Gris	10	1	4	8	7	4	4	0	6		3	7	0	3	7	7
D	2016	Still	Pinot Gris	5	2	2	0	2	4	3	0	4		3	6	6	6	2	3

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
D	2016	Still	Pinot Gris	9	2	1	4	2	2	5	4	3		2	5	3	4	3	2
D	2016	Still	Pinot Gris	5	1	1	2	2	1	3	1	3		6	2	3	1	3	2
D	2016	Still	Pinot Gris	7	2	1	3	2	2	0	0	5		6	5	3	4	4	5
D	2016	Still	Pinot Gris	4	1	4	5	2	4	3	2	4		4	3	2	5	3	4
D	2016	Still	Pinot Gris	9	1	4	6	6	4	2	0	5		3	1	0	5	4	6
D	2016	Still	Pinot Gris	3	2	0	5	6	7	2	0	2		7	7	9	8	5	4
D	2016	Still	Pinot Gris	3	1	2	4	2	2	4	0	5		8	7	6	3	5	6
D	2016	Still	Pinot Gris	12	2	2	6	3	8	6	0	8		7	7	9	8	2	2
D	2016	Still	Pinot Gris	8	2	2	4	1	1	3	3	2		3	4	1	6	6	5
D	2016	Still	Pinot Gris	8	1	1	2	1	1	0	1	5		6	5	2	8	7	7
G	2016	Still	Riesling	11	2	3	4	3	3	2	4	1		6	4	2	5	4	4
G	2016	Still	Riesling	2	2		4	4	1	1	4	2		8	1	6	8	2	2
G	2016	Still	Riesling	2	1	3	6	7	2	5	7	5		8	6	8	4	4	4
G	2016	Still	Riesling	6	1	6	4	4	2	0	1	5		6	1	1	6	6	6
G	2016	Still	Riesling	6	2	7	8	6	0	4	0	7		9	1	0	7	2	2
G	2016	Still	Riesling	7	1	6	6	4	3	0	1	6		6	0	4	5	5	5
G	2016	Still	Riesling	10	2	5	6	7	3	4	4	3		8	5	4	6	6	7
G	2016	Still	Riesling	1	2	7	4	3	5	0	0	4		5	0	2	4	4	4
G	2016	Still	Riesling	1	1	6	5	6	5	3	0	6		4	1	0	6	6	6
G	2016	Still	Riesling	4	2	7	7	3	8	2	2	4		2	6	4	7	3	3
G	2016	Still	Riesling	10	1	6	7	6	4	6	3	4		4	8	2	7	7	7
G	2016	Still	Riesling	5	2	8	4	4	6	6	2	7		7	2	1	7	7	7
G	2016	Still	Riesling	9	2	6	5	6	3	4	3	5		3	4	6	4	2	1
G	2016	Still	Riesling	5	1	3	2	2	2	0	2	1		8	2	3	1	2	3
G	2016	Still	Riesling	7	2	7	4	0	2	1	0			3	2	1	5	4	5
G	2016	Still	Riesling	4	1	7	6	2	3	5	3	6		5	2	1	6	6	7
G	2016	Still	Riesling	9	1	5	4	5	4	3	0	5		6	0	2	5	6	6
G	2016	Still	Riesling	3	2	1	8	8	4	7	0	7		8	6	7	9	5	6
G	2016	Still	Riesling	3	1	3	7	7	2	7	0	6		7	2	6	4	4	4
G	2016	Still	Riesling	12	2	6	6	1	8	5	0	7		4	2	8	8	2	3
G	2016	Still	Riesling	8	2	6	5	0	0	5	4	4		2	3	0	4	6	5
G	2016	Still	Riesling	8	1	7	8	4	5	7	2	7		7	2	1	8	7	7
H	2016	Still	Riesling	11	2	2	7	6	6	4	7	6		7	6	5	7	7	6
H	2016	Still	Riesling	2	2	2	7	4	8	6	3	6		6	6	4	6	6	6
H	2016	Still	Riesling	2	1	7	7	1	1	7	7	3		8	1	7	8	2	2

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**Table 13**  
(continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
H	2016	Still	Riesling	6	1	5	6	2	4	1	1	6		5	3	2	5	5	5
H	2016	Still	Riesling	6	2	5	7	0	4	3	2	7		3	2	3	6	6	6
H	2016	Still	Riesling	7	1	6	8	6	7	0	1	7		5	2	1	6	6	6
H	2016	Still	Riesling	10	2	6	7	5	7	6	7	8		6	6	4	8	8	8
H	2016	Still	Riesling	1	2	5	6	4	6	1	0	5		4	1	1	4	4	4
H	2016	Still	Riesling	1	1	5	6	4	6	3	0	5		4	0	0	5	5	5
H	2016	Still	Riesling	4	2	5	8	8	6	6	1	9		4	2	2	7	8	8
H	2016	Still	Riesling	10	1	4	8	8	6	2	0	8		6	7	2	6	7	5
H	2016	Still	Riesling	5	2	7	5	2	4	6	3	3		6	2	1	4	3	4
H	2016	Still	Riesling	9	2	5	4	3	2	0	2	2		3	1	4	1	2	2
H	2016	Still	Riesling	5	1	3	2	2	3	1	2	1		8	1	4	1	2	2
H	2016	Still	Riesling	7	2	8	7	1	6	1	1	6		4	4	2	5	6	6
H	2016	Still	Riesling	4	1	6	6	5	2	4	4	6		5	1	1	5	6	6
H	2016	Still	Riesling	9	1	5	6	5	4	5	0	6		5	1	0	5	5	6
H	2016	Still	Riesling	3	2	1	6	4	7	6	1	6		7	6	7	8	4	4
H	2016	Still	Riesling	3	1	2	7	5	7	1	1	6		2	2	2	2	4	5
H	2016	Still	Riesling	12	2	3	7	1	7	4	0	6		7	0	9	7	1	2
H	2016	Still	Riesling	8	2	5	5	4	3	3	2	3		2	4	1	4	4	4
H	2016	Still	Riesling	8	1	5	5	6	3	1	2	6		2	1	2	0	1	2
I	2016	Still	Riesling	11	2	1	4	6	7	3	4	5		3	2	3	1	1	2
I	2016	Still	Riesling	2	2	1	3	3	3	2	2	2		3	3	7	6	4	3
I	2016	Still	Riesling	2	1	2	6	4	7	7	6	5		9	2	9	8	2	2
I	2016	Still	Riesling	6	1	4	3	1	1	1	3	2		2	0	5	5	3	3
I	2016	Still	Riesling	6	2	5	3	0	1	1	4	4		6	7	6	7	5	2
I	2016	Still	Riesling	7	1	7	6	6	4	4	1	5		7	0	2	5	5	5
I	2016	Still	Riesling	10	2	5	6	5	4	7	7	6		7	6	4	6	8	7
I	2016	Still	Riesling	1	2	5	5	5	4	3	0	5		5	1	2	4	4	4
I	2016	Still	Riesling	1	1	4	4	5	4	1	1	3		5	0	1	4	4	4
I	2016	Still	Riesling	4	2	2	6	7	5	7	3	7		4	2	2	6	6	6
I	2016	Still	Riesling	10	1	4	5	4	4	7	2	4		8	1	2	8	2	3
I	2016	Still	Riesling	5	2	4	5	6	4	6	3	6		8	0	7	6	2	3
I	2016	Still	Riesling	9	2	2	5	4	2	6	4	6		6	2	3	4	5	4
I	2016	Still	Riesling	5	1	2	1	2	2	4	2	1		8	2	3	2	3	2
I	2016	Still	Riesling	7	2	5	7	2	5	4	1	8		6	5	1	9	8	8
I	2016	Still	Riesling	4	1	4	5	3	3	4	2	5		6	1	1	5	5	5

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
I	2016	Still	Riesling	9	1	3	5	2	5	1	0	5		4	0	1	5	4	5
I	2016	Still	Riesling	3	2	0	6	3	4	4	0	6		8	6	8	7	5	5
I	2016	Still	Riesling	3	1	2	8	7	2	6	0	7		6	2	7	3	4	3
I	2016	Still	Riesling	12	2	1	4	4	6	8	1	5		3	6	6	3	2	2
I	2016	Still	Riesling	8	2	2	3	1	0	4	1	2		5	3	1	5	5	4
I	2016	Still	Riesling	8	1	3	2	7	6	1	0	7		2	1	0	3	2	4
Reference pinot blanc	2016	Still	Pinot blanc	6	2	7	4	5	2	3	6	5		3	2	6	6	5	6
Reference pinot blanc	2016	Still	Pinot blanc	2	2	6	4	3	4	6	6	7		7	7	7	7	1	2
Reference pinot blanc	2016	Still	Pinot blanc	8	2	4	6	7	2	1	1	6		1	2	0	6	6	6
Reference pinot blanc	2016	Still	Pinot blanc	4	2	5	7	3	0	3	0	6		5	4	0	5	8	7
Reference pinot blanc	2016	Still	Pinot blanc	7	2	6	7	0	7	0	5	7		3	4	1	7	6	8
Reference pinot blanc	2016	Still	Pinot blanc	11	2	7	4	4	2	7	1	5		6	6	3	4	5	5
Reference pinot blanc	2016	Still	Pinot blanc	1	2	6	6	5	4	5	0	7		6	3	0	6	7	7
Reference pinot blanc	2016	Still	Pinot blanc	5	2	3		3	3	7	4	4		8	1	4	5	6	5
Reference pinot blanc	2016	Still	Pinot blanc	10	2	6	2	1	2	2	4	3		4	3	4	6	5	4
Reference pinot blanc	2016	Still	Pinot blanc	3	2	2	3	1	1	0	0	1		6	6	8	7	5	5

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference pinot blanc	2016	Still	Pinot blanc	9	2	5	4	5	0	0	0	5		6	4	5	6	6	5
Reference pinot gris	2016	Still	Pinot Gris	6	2	4	2	5	2	5	5	4		1	7	2	5	5	6
Reference pinot gris	2016	Still	Pinot Gris	7	2	4	6	4	2	3	3	5		4	3	2	8	7	7
Reference pinot gris	2016	Still	Pinot Gris	11	2	2	3	3	5	4	5	4		3	6	1	5	6	6
Reference pinot gris	2016	Still	Pinot Gris	2	2	5	7	3	9	0	0	7		5	5	4	7	7	7
Reference pinot gris	2016	Still	Pinot Gris	2	2	1	4	4	3	4	2	2		4	7	8	7	5	4
Reference pinot gris	2016	Still	Pinot Gris	2	1	2	2	7	4	2	3	2		6	7	3	7	7	6
Reference pinot gris	2016	Still	Pinot Gris	2	2	1	2	6	6	3	6	3		3	2	7	6	3	3
Reference pinot gris	2016	Still	Pinot Gris	4	2	3	3	7	4	6	7	6		7	6	8	2	3	6
Reference pinot gris	2016	Still	Pinot Gris	8	2	3	8	5	2	1	1	6		1	3	0	5	5	6
Reference pinot gris	2016	Still	Pinot Gris	11	2	4	8	7	6	7	1	9		2	4	1	6	8	8
Reference pinot gris	2016	Still	Pinot Gris	4	2	6	6	0	0		7	1		2	7	3	1	5	3
Reference pinot gris	2016	Still	Pinot Gris	6	1	3	4	1	4	0	1	4		2	5	1	5	6	7
Reference pinot gris	2016	Still	Pinot Gris	9	2	4	3	3	2	0	0	2		4	3	1	8	6	4
Reference pinot gris	2016	Still	Pinot Gris	7	2	3	2	1	3	0	0	2		6	3	1	5	4	4
Reference pinot gris	2016	Still	Pinot Gris	6	2	6	7	6	0	2	5	5		3	9	4	3	3	3
Reference pinot gris	2016	Still	Pinot Gris	7	1	2	4	4	4	0	1	7		2	6	3	6	7	6

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference pinot gris	2016	Still	Pinot Gris	10	2	2	3	4	6	6	4	5		4	7	3	7	7	6
Reference pinot gris	2016	Still	Pinot Gris	11	2	5	4	6	4	4	2	5		5	7	3	5	6	6
Reference pinot gris	2016	Still	Pinot Gris	1	2	5	6	5	7	0	0	6		4	5	0	5	6	6
Reference pinot gris	2016	Still	Pinot Gris	1	1	4	5	4	5	1	0	5		4	5	0	6	6	6
Reference pinot gris	2016	Still	Pinot Gris	1	2	5	5	4	5	0	1	5		4	2	0	5	5	5
Reference pinot gris	2016	Still	Pinot Gris	5	2	3	6	7	7	1	3	5		5	4	1	7	6	6
Reference pinot gris	2016	Still	Pinot Gris	4	2	4	4	8	6	2	2	7		4	7	2	7	7	6
Reference pinot gris	2016	Still	Pinot Gris	1	2	7	6	5	1	2	0	6		3	6	0	5	5	4
Reference pinot gris	2016	Still	Pinot Gris	5	2	4	6	6	5	4	6	6		6	3	3	4	6	6
Reference pinot gris	2016	Still	Pinot Gris	10	1	4	5	7	3	6	0	6		7	7	0	7	6	7
Reference pinot gris	2016	Still	Pinot Gris	8	2	4	7	8	6	9	0	8		7	8	2	2	7	8
Reference pinot gris	2016	Still	Pinot Gris	5	2	3	0	3	1	3	0	1		3	6	0	6	1	1
Reference pinot gris	2016	Still	Pinot Gris	9	2	2	4	2	4	1	4	2		4	7	4	2	2	2
Reference pinot gris	2016	Still	Pinot Gris	5	1	1	4	2	1	4	1	4		4	6	1	3	4	3
Reference pinot gris	2016	Still	Pinot Gris	10	2	1	4	2	3	1	4	3		0	6	1	4	0	2
Reference pinot gris	2016	Still	Pinot Gris	7	2	1	1	1	1	0	0	6		6	6	0	6	4	5
Reference pinot gris	2016	Still	Pinot Gris	4	1	5	5	2	2	1	5	4		4	3	1	4	3	3
Reference pinot gris	2016	Still	Pinot Gris	9	1	4	4	3	4	2	1	3		6	0	1	5	5	5

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**Table 13**  
(continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference pinot gris	2016	Still	Pinot Gris	3	2	0	1	3	1	2	0	3		5	7	5	3	3	5
Reference pinot gris	2016	Still	Pinot Gris	3	1	1	6	3	1	4	0	3		5	7	2	3	6	6
Reference pinot gris	2016	Still	Pinot Gris	3	2	2	1	1	0	0	0	1		4	7	6	6	4	5
Reference pinot gris	2016	Still	Pinot Gris	3	2	2	7	6	9	7	1	8		8	8	0	3	9	9
Reference pinot gris	2016	Still	Pinot Gris	6	2	3	8	6	2	7	4	6		6	6	4	7	7	8
Reference pinot gris	2016	Still	Pinot Gris	12	2	3	5	4	8	8	0	9		6	8	0	4	5	7
Reference pinot gris	2016	Still	Pinot Gris	8	2	2	4	2	2	3	2	2		1	7	1	3	4	3
Reference pinot gris	2016	Still	Pinot Gris	8	1	1	2	2	6	0	1	2		4	5	2	7	7	6
Reference pinot gris	2016	Still	Pinot Gris	10	2	2	5	6	7	5	3	6		3	8	1	6	6	6
Reference pinot gris	2016	Still	Pinot Gris	9	2	6	4	5	0	0	0	5		6	6	5	6	5	5
Reference pinot gris	2016	Still	Pinot Gris	4	2	2	9	7	8	8	8	8		8	7	7	4	7	8
Reference pinot gris	2016	Still	Pinot Gris	10	2	1	7	1	1	6	2	5		7	6	0	5	8	7
Reference pinot gris	2016	Still	Pinot Gris	9	2	3	2	2	2	1	2	2		4	6	5	6	6	6
Reference pinot gris	2016	Still	Pinot Gris	7	2	1	8			1	4	10		1	7	1	2	9	9
Reference pinot gris	2016	Still	Pinot Gris	3	2	4	6	4	4	7	5	3		7	7	4	6	5	5
Reference pinot gris	2016	Still	Pinot Gris	1	2	5	7	4	7	0	0	6		5	3	0	6	6	6
Reference pinot gris	2016	Still	Pinot Gris	6	2		9	5	0	0	6	5		5	8	1	7	8	8
Reference pinot gris	2016	Still	Pinot Gris	12	2	4	5	2	6	3	6	5		5	6	4	5	5	5

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference pinot gris	2016	Still	Pinot Gris	2	2	4	7	8	2	8	0	6		4	7	0	7	8	8
Reference pinot gris	2016	Still	Pinot Gris	11	2	3	1	2	3	1	6	1		2	8	2	4	2	2
Reference pinot gris	2016	Still	Pinot Gris	5	2	2	6	6	6	6	0	7		2	6	6	4	5	6
Reference pinot gris	2016	Still	Pinot Gris	8	2	2	7	5	3	6	3	7		2	7	1	2	3	4
Reference riesling	2016	Still	Riesling	6	2	5	3	7	4	4	2	6		4	1	4	3	3	4
Reference riesling	2016	Still	Riesling	7	2	6	7	6	4	2	2	7		6	1	0	6	6	7
Reference riesling	2016	Still	Riesling	11	2	4	6	9	3	0	5	4		5	3	1	3	2	3
Reference riesling	2016	Still	Riesling	2	2	4	2	7	1	0	1	6		8	2	8	8	3	4
Reference riesling	2016	Still	Riesling	2	2	2	7	7	6	7	6	6		9	2	7	7	2	4
Reference riesling	2016	Still	Riesling	2	1	3	1	0	0	2	0	0		2	1	2	1	0	1
Reference riesling	2016	Still	Riesling	2	2	4	3	2	2	2	3	2		8	3	8	5	2	1
Reference riesling	2016	Still	Riesling	4	2	8	8	4	8	8	3	4		8	8	3	7	7	7
Reference riesling	2016	Still	Riesling	8	2	5	8	6	2	6	1	6		5	0	0	5	5	5
Reference riesling	2016	Still	Riesling	11	2	5	8	7	6	6	4	7		7	4	8	7	6	5
Reference riesling	2016	Still	Riesling	4	2	6	5	0	0	4	2	2		6	1	1	3	4	2
Reference riesling	2016	Still	Riesling	6	1	4	4	4	1	1	1	5		6	0	1	6	5	6
Reference riesling	2016	Still	Riesling	9	2	3	2	7	5	1	1	3		3	1	7	2	3	3
Reference riesling	2016	Still	Riesling	7	2	6	5	7	2	0	5	5		6	0	3	2	3	6

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference riesling	2016	Still	Riesling	6	2	6	6	8	3	0	1	3		5	5	6	6		4
Reference riesling	2016	Still	Riesling	7	1	6	4	5	3	1	2	5		2	1	2	4	5	4
Reference riesling	2016	Still	Riesling	10	2	5	4	5	4	7	4	6		4	4	6	3	5	5
Reference riesling	2016	Still	Riesling	11	2	7	8	4	2	5	7	6		6	4	5	5	6	5
Reference riesling	2016	Still	Riesling	1	2	5	6	5	7	1	0	6		4	0	0	4	5	5
Reference riesling	2016	Still	Riesling	1	1	5	5	4	6	4	0	5		6	0	0	5	5	5
Reference riesling	2016	Still	Riesling	1	2	4	7	2	6	1	0	6		5	1	0	6	6	6
Reference riesling	2016	Still	Riesling	5	2	3	8	8	6	2	0	8		6	0	3	3	5	6
Reference riesling	2016	Still	Riesling	4	2	5	8	8	6	2	2	7		4	2	2	6	6	5
Reference riesling	2016	Still	Riesling	1	2	8	4	6	8	2	0	7		3	1	1	6	5	6
Reference riesling	2016	Still	Riesling	5	2	4	5	3	3	4	2	3		7	3	4	5	6	5
Reference riesling	2016	Still	Riesling	10	1	3	7	9	6	1	0	9		7	4	0	6	5	6
Reference riesling	2016	Still	Riesling	8	2	5	8	8	6	5	0	8		5	6	3	6	8	8
Reference riesling	2016	Still	Riesling	5	2	6	7	4	8	4	2	4		9	0	9	6	0	1
Reference riesling	2016	Still	Riesling	9	2	4	4	2	3	1	4	2		5	3	6	5	3	4
Reference riesling	2016	Still	Riesling	5	1	3	2	1	2	0	1	2		1	3	2	3	2	2
Reference riesling	2016	Still	Riesling	10	2	2	2	3	2	4	1	2		4	1	5	5	2	2

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**Table 13**  
(continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference riesling	2016	Still	Riesling	7	2	8	6		5	4	1	6		7	1	3	7	7	7
Reference riesling	2016	Still	Riesling	4	1	4	2	1	1	1	1	2		6	0	0	1	1	1
Reference riesling	2016	Still	Riesling	9	1	4	3	3	4	1	1	4		3	0	2	3	3	3
Reference riesling	2016	Still	Riesling	3	2	1		7	5	0	0	7		6	2	6	5	5	
Reference riesling	2016	Still	Riesling	3	1	2	8	6	7	6	1	6		6	1	3	6	7	7
Reference riesling	2016	Still	Riesling	3	2	2	6	2	3	6	0	4		7	3	7	8	4	4
Reference riesling	2016	Still	Riesling	3	2	2	5	6	3	8	2	8		9	2	0	7	7	6
Reference riesling	2016	Still	Riesling	6	2	5	5	2	7	6	1	6		6	3	0	5	3	5
Reference riesling	2016	Still	Riesling	12	2	3	6	1	7	7	0	5		8	0	7	9	3	4
Reference riesling	2016	Still	Riesling	8	2	3	7	6	3	4	6	7		5	1	4	2	3	5
Reference riesling	2016	Still	Riesling	8	1	4	9	1	8	0	1	3		2	3	6	7	1	3
Reference riesling	2016	Still	Riesling	10	2	3	7	8	3	2	5	6		2	4	1	4	2	3
Reference riesling	2016	Still	Riesling	9	2	5	6	7	0	0	0	6		7	4	5	6	5	5
Reference riesling	2016	Still	Riesling	4	2	7	8	9	7	7	9	8		7	8	7	6	7	7
Reference riesling	2016	Still	Riesling	10	2	2	6	0	0	5	5	2		2	5	2	5	3	3
Reference riesling	2016	Still	Riesling	9	2	5	4	2	2	2	2	2		5	6	6	7		4
Reference riesling	2016	Still	Riesling	7	2	0	10	6	5	3	4	8		3	6	2	3	4	6
Reference riesling	2016	Still	Riesling	3	2	6	6	7	5	5	6	4		7	4	4	3	5	4

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference riesling	2016	Still	Riesling	1	2	5	6	1	5	1	0	6		6	0	0	6	6	6
Reference riesling	2016	Still	Riesling	6	2	6	9	8	2	5	5	5		7	1	0	4	2	2
Reference riesling	2016	Still	Riesling	12	2	3	5	4	5	4	0	5		4	1	7	4	6	6
Reference riesling	2016	Still	Riesling	2	2	4	8	8	8	2	2	8		8	3	0	7	7	7
Reference riesling	2016	Still	Riesling	11	2	4	3	2	2	2	3	2		1	3	1	2	2	2
Reference riesling	2016	Still	Riesling	5	2	2	6	2	1	7	0	7		6	0	5	8	5	7
Reference riesling	2016	Still	Riesling	8	2	6	6	4	2	3	4	4		2	3	3	2	3	3
Reference sparkling wine	2016	Spark	Riesling	6	2	6	4	5	8	2	3	6	9	3	2	3	8	2	3
Reference sparkling wine	2016	Spark	Riesling	2	2		8	8	8	0	0	2	6	2	7	6	2	3	3
Reference sparkling wine	2016	Spark	Riesling	8	2	5		1	4	3	1	6	6	4	1	0	4	2	2
Reference sparkling wine	2016	Spark	Riesling	4	2	5	3	3	3	7	0	3	5	4	7	2	5	7	7
Reference sparkling wine	2016	Spark	Riesling	7	2	7	6	7	8	0	2	7	5	6	2	4	5	6	6
Reference sparkling wine	2016	Spark	Riesling	11	2	6	6	5	5	2	6	7	6	8	3	6	5	4	6
Reference sparkling wine	2016	Spark	Riesling	1	2	8	6	6	6	1	0	7	5	7	5	0	7	7	8

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**Table 13**  
(continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference sparkling wine	2016	Spark	Riesling	5	2	6	6	5	6	3	5	6	8	6	4	5	6	6	6
Reference sparkling wine	2016	Spark	Riesling	10	2	7	5	5	3	6	3	4	8	4	2	7	6	3	4
Reference sparkling wine	2016	Spark	Riesling	3	2	2	5	1	3	6	0	1	7	3	6	0	0	2	2
Reference sparkling wine	2016	Spark	Riesling	9	2	4	6	5	0	0	0	5	6	6	3	5	7	7	6
Reference sparkling wine	2016	Spark	Riesling	4	2	8	8	8	8	7	8	8	9	8	8	7	8	8	8
Reference sparkling wine	2016	Spark	Riesling	10	2	5	6	6	5	1	1	7	8	3	6	1	4	9	9
Reference sparkling wine	2016	Spark	Riesling	9	2	5	5	4	1	3	2	4	6	5	4	7	7	4	5
Reference sparkling wine	2016	Spark	Riesling	7	2	6	8	2	7	6	4	2	8	3	7	2	3	7	7
Reference sparkling wine	2016	Spark	Riesling	3	2	7	3	7	5	6	4	6	7	4	6	3	5	4	
Reference sparkling wine	2016	Spark	Riesling	1	2	8	8	6	4	0	0	7		5	2	0	7	7	7
Reference sparkling wine	2016	Spark	Riesling	6	2		6	7	6	7	6	3	7	8	2	1	8	3	2
Reference sparkling wine	2016	Spark	Riesling	12	2	4	6	6	4	2	4	4	6	4	2	3	5	5	5

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference sparkling wine	2016	Spark	Riesling	2	2	6	6	1	3	7	6	3	6	7	3	0	7	5	5
Reference sparkling wine	2016	Spark	Riesling	11	2	5	4	3	5	1	2	2	6	4	7	4	1	3	2
Reference sparkling wine	2016	Spark	Riesling	5	2	3	6	0	2	8	1	2	2	3	7	2	7	7	5
Reference sparkling wine	2016	Spark	Riesling	8	2	6	3	3	2	3	3	3	6	2	6	1	6	5	5
A	2017	Still	Pinot Gris	6	1	2	5	3	7	2	2			2	3	6	4	2	4
A	2017	Still	Pinot Gris	8	2	1	3	2	5	4	2	1		5	4	3	3	3	3
A	2017	Still	Pinot Gris	2	1	4	1	0	0	2	0	4		2	2	5	3	1	2
A	2017	Still	Pinot Gris	8	1	3	7	7	3	1	1	6		2	0	0	6	5	6
A	2017	Still	Pinot Gris	6	2	1	6	0	0	8	0	1		2	5	4	5	1	2
A	2017	Still	Pinot Gris	4	1	2	8	0	0	0	7	0		9	0	7	2	0	0
A	2017	Still	Pinot Gris	7	1	2	6	0	5	5	2	4		5	1	4	5	4	6
A	2017	Still	Pinot Gris	10	2	6	8	5	7	7	8	6		7	3	6	8	6	6
A	2017	Still	Pinot Gris	7	2	3	4	6	3	4	5	5		6	6	2	4	7	6
A	2017	Still	Pinot Gris	11	1	1	5	6	3	4	1	5		6	4	3	5	4	4
A	2017	Still	Pinot Gris	3	2	2	3	0	2	2	0	3		6	1		4	5	5
A	2017	Still	Pinot Gris	1	1	6	6	4	0	5	1	7		6	4	1	7	6	7
A	2017	Still	Pinot Gris	5	2	4	7	6	4	2	4	6		6	1	4	4	1	2
A	2017	Still	Pinot Gris	5	1	4	6	6	3	5	2	6		4	1	3	5	7	6
A	2017	Still	Pinot Gris	2	2	3	7	4	2	3	2	5		4	3	7	4	2	2
A	2017	Still	Pinot Gris	10	1	2	2	2	3	5	4	2		2	5	6	3	4	4
A	2017	Still	Pinot Gris	9	2	4	4	5	5	4	4	5		6	5	4	5	6	6
A	2017	Still	Pinot Gris	4	2	5	6	2	5	2	2	6		6	4	2	5	6	6
A	2017	Still	Pinot Gris	3	1	1	5	4	4	0	0	2		6	6	5	6	5	5
A	2017	Still	Pinot Gris	1	2	2	4	1	6	5	0	3		7	6	2	6	7	5
A	2017	Still	Pinot Gris	9	1	4	5	0	0	3	0	4		6	4	6	6	5	4
B	2017	Still	Riesling	6	1	4	7	4	9	4	2	7		4	2	2	4	5	6
B	2017	Still	Riesling	2	1	2	2	8	2	8	3	3		8	8	2	6	6	6

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**Table 13**

(continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
B	2017	Still	Riesling	8	1	5	8	3	2	6	3	3		0	4	0	6	5	5
B	2017	Still	Riesling	4	1	4	7	5	2	5	0	7		6	3	8	2	3	3
B	2017	Still	Riesling	7	1	5	4	2	0	7	4	2		4	2	2	3	3	3
B	2017	Still	Riesling	11	1	7	8	6	3	5	2	7		7	6	6	5	7	7
B	2017	Still	Riesling	1	1	8	7	7	7	1	0	7		6	1	1	7	6	6
B	2017	Still	Riesling	5	1	7	6	3	3	6	7	6		6	2	5	5	5	5
B	2017	Still	Riesling	10	1	5	5	1	2	2	3	2		4	5	2	7	4	4
B	2017	Still	Riesling	3	1	2	2	1	5	1	0	2		8	3	7	7	4	
B	2017	Still	Riesling	9	1	5	4	4	0	0	0	4		7	3	5	7	7	6
B	2017	Still	Riesling	8	2	1	4	7	6	4	5	5		6	4	3	3	5	5
B	2017	Still	Riesling	6	2	2	6	3	3	5	0	4		8	6	1	6	4	4
B	2017	Still	Riesling	10	2	6	6	6	7	5	8	6		5	6	4	2	4	6
B	2017	Still	Riesling	7	2	4	5	6	7	4	3	6		6	5	2	6	5	5
B	2017	Still	Riesling	3	2	5	4	4	3	0	0	7		6	2	0	8	7	8
B	2017	Still	Riesling	5	2	4	7	5	8	3	4	7		6	2	8	4	1	2
B	2017	Still	Riesling	2	2	5	8	6	7	1	1	7		7	7	3	7	7	7
B	2017	Still	Riesling	9	2	6	6	5	6	5	5	5		6	6	2	4	6	6
B	2017	Still	Riesling	4	2	5	6	7	6	3	2	7		6	6	2	7	7	7
B	2017	Still	Riesling	1	2	2	4	3	1	5	0	4		5	5	2	4	3	3
C	2017	Still	Pinot Gris	6	1	3	6	3	7	4	3	7		2	7	1	8	6	7
C	2017	Still	Pinot Gris	8	2	1	4	3	5	6	4	4		3	6	2	4	6	5
C	2017	Still	Pinot Gris	2	1	2	7	7	7	3	7	7		7	8	7	8	6	7
C	2017	Still	Pinot Gris	8	1	3	8	2	5	5	5	4		2	0	0	4	5	4
C	2017	Still	Pinot Gris	6	2	3	2	0	0	7	6	2		5	4	2	5	6	2
C	2017	Still	Pinot Gris	4	1	2	3	5	0	3	1	4		6	4	7	2	5	4
C	2017	Still	Pinot Gris	7	1	2	6	7	8	0	0	6		4	3	1	8	5	8
C	2017	Still	Pinot Gris	10	2	3	3	7	8	6	4	7		6	7	4	6	7	7
C	2017	Still	Pinot Gris	7	2	2	6	6	5	5	6	6		5	6	4	3	4	5
C	2017	Still	Pinot Gris	11	1	5	5	5	4	6	2	7		5	6	5	5	6	6
C	2017	Still	Pinot Gris	3	2	5	1	1	1	1	1	2		4	1	0	5	5	4
C	2017	Still	Pinot Gris	1	1	7	5	5	1	5	0	6		5	2	0	6	6	6
C	2017	Still	Pinot Gris	5	2	2	5	6	5	3	5	5		3	4	4	5	3	4
C	2017	Still	Pinot Gris	5	1	3	5	5	3	6	4	7		7	1	3	5	6	6
C	2017	Still	Pinot Gris	2	2	6	4	3	2	3	0	5		3	7	1	6	6	6
C	2017	Still	Pinot Gris	10	1	1	1	2	1	4	1	3		2	6	2	3	4	3

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**Table 13**  
(continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
C	2017	Still	Pinot Gris	9	2	5	6	5	6	3	5	5		2	3	3	3	5	5
C	2017	Still	Pinot Gris	4	2	4	3	2	2	1	2	3		5	4	2	3	3	3
C	2017	Still	Pinot Gris	3	1	1	6	5	5	1	0	5		7	7	7	8	7	5
C	2017	Still	Pinot Gris	1	2	4	1	1	6	4	1	3		1	5	6	6	1	2
C	2017	Still	Pinot Gris	9	1	6	4	4	0	0	0	5		6	5	6	6	5	5
D	2017	Still	Pinot Gris	6	1	4	3	7	3	7	2	6		3	4	3	8	7	8
D	2017	Still	Pinot Gris	8	2	2	2	4	3	4	2	2		3	5	5	4	5	5
D	2017	Still	Pinot Gris	2	1	2	2	7	4	4	6	5		10	3	10	7	2	3
D	2017	Still	Pinot Gris	8	1	2	7	3	6	5	2	4		2	2	3	5	6	6
D	2017	Still	Pinot Gris	6	2	1	4	4	3	6	2	7		6	6	1	6	7	8
D	2017	Still	Pinot Gris	4	1	3	3	0	2	3	0	4		1	3	6	3	4	6
D	2017	Still	Pinot Gris	7	1	4	3	2	0	0	8	3		6	3	4	7	7	6
D	2017	Still	Pinot Gris	10	2	7	7	4	5	9	7	3		5	2	7	6	3	5
D	2017	Still	Pinot Gris	7	2	3	4	6	3	4	5	5		6	5	4	5	6	6
D	2017	Still	Pinot Gris	11	1	2	1	2	1	3	2	2		4	6	2	6	6	5
D	2017	Still	Pinot Gris	3	2	5	5	5	1	0	0	6		4	1	2	5	5	6
D	2017	Still	Pinot Gris	1	1	4	6	5	1	3	0	6		7	4	1	8	8	8
D	2017	Still	Pinot Gris	5	2	3	3	4	2	1	3	4		3	1	5	2	1	1
D	2017	Still	Pinot Gris	2	2	6	6	7	3	3	0	6		3	7	1	7	4	6
D	2017	Still	Pinot Gris	10	1	1	5	4	4	1	4	5		3	7	0	6	5	6
D	2017	Still	Pinot Gris	9	2	4	5	5	5	2	6	5		7	2	4	5	3	4
D	2017	Still	Pinot Gris	4	2	4	5	2	5	2	3	6		4	3	2	6	5	5
D	2017	Still	Pinot Gris	3	1	1	5	3	6	3	0	5		6	6	7	7	6	5
D	2017	Still	Pinot Gris	1	2	5	6	3	3	3	0	3		4	8	8	8	2	2
D	2017	Still	Pinot Gris	9	1	6	4	0	0	5	0	5		7	3	5	7	6	6
E	2017	Still	Pinot Blanc	6	1	4	6	4	2	5	7	3		6	1	8	2	1	2
E	2017	Still	Pinot Blanc	8	2	1	4	3	4	4	6	3		4	4	4	3	4	4
E	2017	Still	Pinot Blanc	2	1	3	3	3	1	4	2	2		7	7	4	2	6	
E	2017	Still	Pinot Blanc	8	1	1	7	5	7	2	1	5		4	0	2	6	2	3
E	2017	Still	Pinot Blanc	6	2	4	6	1	1	6	8	1		10	1	1	4	1	0

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
E	2017	Still	Pinot Blanc	4	1	2	3	0	0	0	4	1		9	0	2	0	0	2
E	2017	Still	Pinot Blanc	7	1	3	4	3	0	6	0	5		7	0	6	2	4	3
E	2017	Still	Pinot Blanc	10	2	6	6	7	4	7	7	5		8	4	7	8	4	3
E	2017	Still	Pinot Blanc	7	2	4	4	5	7	4	7	6		5	5	4	3	5	5
E	2017	Still	Pinot Blanc	11	1	4	7	7	5	5	6	7		7	4	2	4	5	5
E	2017	Still	Pinot Blanc	3	2	4	5	4	4	0	0	5		7	1	2	6	5	5
E	2017	Still	Pinot Blanc	1	1	5	6	5	5	0	0	6		6	1	1	7	5	5
E	2017	Still	Pinot Blanc	5	2	2	3	2	1	5	2	2		6	1		2	3	2
E	2017	Still	Pinot Blanc	5	1	3	3	4	2	6	2	4		8	2	4	6	3	3
E	2017	Still	Pinot Blanc	2	2	1	4	3	2	1	2	3		8	2	3	6	3	4
E	2017	Still	Pinot Blanc	10	1	2	2	2	1	1	3	1		1	3	4	2	2	2
E	2017	Still	Pinot Blanc	9	2	3	5	5	3	6	4	5		5	4	5	6	5	5
E	2017	Still	Pinot Blanc	4	2	4	5	2	4	2	2	4		6	1	2	4	4	4
E	2017	Still	Pinot Blanc	3	1	1	5	2	0	1	0	2		8	8	7	3	3	2
E	2017	Still	Pinot Blanc	1	2	3	6	4	7	3	1	6		8	4	0	7	7	8
E	2017	Still	Pinot Blanc	9	1	5	6	0	0	6	0	6		7	3	6	7	6	6
F	2017	Still	Pinot Blanc	6	1	4	6	5	4	3	4	5		4	2	8	3	2	4
F	2017	Still	Pinot Blanc	8	2	1	4	4	3	4	6	4		6	6	5	2	3	3

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**Table 13** (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
F	2017	Still	Pinot Blanc	2	1	2	6	7	7	3	4	6		7	7	3	5	6	6
F	2017	Still	Pinot Blanc	8	1	2	4	4	1	5	5	4		4	0	2	4	4	4
F	2017	Still	Pinot Blanc	6	2	4	4	0	0	7	7	4		8	1	1	5	1	2
F	2017	Still	Pinot Blanc	4	1		2	4	0	4	0	2		2	0	0	0	0	3
F	2017	Still	Pinot Blanc	7	1	2	5	4	7	0	0	7		3	0	2	4	4	5
F	2017	Still	Pinot Blanc	10	2	5	7	8	3	6	8	5		5	2	8	6	3	3
F	2017	Still	Pinot Blanc	7	2	4	6	7	5	6	3	6		6	4	2	6	6	5
F	2017	Still	Pinot Blanc	11	1	5	0	0	0	1	0	0		6	3	4	5	5	4
F	2017	Still	Pinot Blanc	3	2	3	5	4	0	0	0	3		4	1		4	2	2
F	2017	Still	Pinot Blanc	1	1	4	5	4	1	5	0	5		5	1	1	7	6	6
F	2017	Still	Pinot Blanc	5	2	3	2	4	0	4	2	3		6	1	2	2	2	2
F	2017	Still	Pinot Blanc	5	1	4	6	7	8	3	2	7		2	3	7		5	6
F	2017	Still	Pinot Blanc	2	2	1	4	3	3	5	1	5		6	2	6	1	3	5
F	2017	Still	Pinot Blanc	10	1	1	2	1	2	4	1	2		2	3	3	6	2	2
F	2017	Still	Pinot Blanc	9	2	3	5	5	5	3	3	5		7	5	4	5	5	5
F	2017	Still	Pinot Blanc	4	2	4	4	2	4	2	2	4		6	1	2	3	3	3
F	2017	Still	Pinot Blanc	3	1	1	2	1	1	2	0	2		9	7	4	3	3	3

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**Table 13**

(continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
F	2017	Still	Pinot Blanc	1	2	4	4	4	1	7	0	3		6	1	1	4	4	4
F	2017	Still	Pinot Blanc	9	1	5	6	5	0	0	0	5		7	3	6	7	6	6
G	2017	Still	Riesling	6	1	5	6	6	4	4	2	6		4	4	3	7	6	6
G	2017	Still	Riesling	2	1	7	4	7	5	6	5	5		8	7	4	6	7	6
G	2017	Still	Riesling	8	1	7	7	5	8	2	0	6		6	0	0	4		5
G	2017	Still	Riesling	4	1	6	6	4	1	0	5	3		5	1	3	0	1	2
G	2017	Still	Riesling	7	1	6	4	0	0	8	5	3		5	0	2	4	3	2
G	2017	Still	Riesling	11	1	6	6	4	6	6	3	6		5	6	2	5	5	5
G	2017	Still	Riesling	1	1	7	8	6	6	1	3	6		8	2	0	8	7	7
G	2017	Still	Riesling	5	1	5	5	6	5	4	5	5		7	2	4	7	6	6
G	2017	Still	Riesling	10	1	2	3	2	2	4	4	2		2	1	3	4	2	2
G	2017	Still	Riesling	3	1	2	5	5	5	2	0	5		7	6	7	7	3	4
G	2017	Still	Riesling	9	1	5	7	0	7	0	0	5		7	4	5	7	7	6
G	2017	Still	Riesling	8	2	2	2	3	4	4	4	3		4	5	1	4	6	5
G	2017	Still	Riesling	6	2	5	3	3	4	1	1	2		7	3	0	2	4	2
G	2017	Still	Riesling	10	2	5	8	4	8	6	6	5		6	5	8	8	4	4
G	2017	Still	Riesling	7	2	6	8	5	5	7	5	3		6	4	4	4	1	2
G	2017	Still	Riesling	3	2	5	7	5	2	0	1	8		7	2	0	7	7	7
G	2017	Still	Riesling	5	2	6	6	7	6	2	4	3		7	2	2	4	3	4
G	2017	Still	Riesling	2	2	4	8	8	2	1	1	6		6	2	2	8	4	6
G	2017	Still	Riesling	9	2	5	3	6	4	3	5	4		4	4	1	5	4	4
G	2017	Still	Riesling	4	2	6	5	1	4	5	4	5		5	3	2	6	5	6
G	2017	Still	Riesling	1	2	3	8	1	1	7	0	2		8	6	8	8	3	3
H	2017	Still	Riesling	6	1	4	8	9	6	2	2	8		2	2	2	2	3	3
H	2017	Still	Riesling	2	1	3	7	7	7	2	2	3		8	8	7	7	3	3
H	2017	Still	Riesling	8	1	5	9	9	7	4	0	8		1	1	0	6	7	8
H	2017	Still	Riesling	4	1	6	6	0	0	2	7	2		7	1	7	1	1	2
H	2017	Still	Riesling	7	1	5	6	9	2	0	0	7		8	2	1	8	7	7
H	2017	Still	Riesling	11	1	5	6	6	4	7	2	7		6	5	3	5	5	5
H	2017	Still	Riesling	1	1	7	8	8	6	2	0	8		4	3	0	5	5	5
H	2017	Still	Riesling	5	1	5	7	6	7	3	4	6		6	2	7	6	6	6
H	2017	Still	Riesling	10	1	2	1	1	2	1	2	1		1	2	3	1	1	1

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
H	2017	Still	Riesling	3	1	2	3		4	5	0	3		10	2	2	5	1	2
H	2017	Still	Riesling	9	1	5	6	7	0	0	0	6		7	3	5	7	6	7
H	2017	Still	Riesling	8	2	1	5	7	6	1	3	7		2	5	4	5	6	6
H	2017	Still	Riesling	6	2	1	4	1	1	6	5	2		8	2	2	6	1	1
H	2017	Still	Riesling	10	2	4	8	4	4	7	7	6		8	4	5	8	3	4
H	2017	Still	Riesling	7	2	6	8	7	6	7	6	8		6	3	2	5	4	2
H	2017	Still	Riesling	3	2	2	5	1	3		2	3		6	1	0	7	5	3
H	2017	Still	Riesling	5	2	6	6	5	6	3	3	6		7	2	2	3	4	5
H	2017	Still	Riesling	2	2	4	7	7	4	3	1	3		7	4	2	8	7	7
H	2017	Still	Riesling	9	2	5	4	5	5	4	6	6		5	5	4	4	4	5
H	2017	Still	Riesling	4	2	4	6	2	5	5	2	5		5	2	2	5	4	5
H	2017	Still	Riesling	1	2	3	3	1	5	7	1	2		7	7	3	8	7	6
I	2017	Still	Riesling	6	1	5	6	6	3	4	2	4		4	1	9	7	4	3
I	2017	Still	Riesling	2	1	4	2	7	3	4	5	4		9	3	3	1	1	2
I	2017	Still	Riesling	8	1	6	6	8	3	2	0	7		6	0	3	7	2	2
I	2017	Still	Riesling	4	1	4	6	0	0	0	0	0		2	0	9	0	0	1
I	2017	Still	Riesling	7	1	4	4	0	0	3	6	3		9	0	6	1	1	1
I	2017	Still	Riesling	11	1	6	7	3	4	7	4	7		5	4	3	4	6	6
I	2017	Still	Riesling	1	1	8	4	8	6	2	0	8		6	2	0	7	6	7
I	2017	Still	Riesling	5	1	5	6	5	5	6	3	6		7	2	23	7	7	7
I	2017	Still	Riesling	10	1	3	4	2	2	6	4	3		3	1	4	5	3	3
I	2017	Still	Riesling	3	1	1	2	2	1	3	0	1		10	1	6	6	2	1
I	2017	Still	Riesling	9	1	5	5	0	0	5	0	6		7	3	4	8	5	5
I	2017	Still	Riesling	8	2	2	3	4	3	5	5	3		2	3	3	4	3	4
I	2017	Still	Riesling	6	2	2	5	0	0	4	0	0		9	1	1	6	0	0
I	2017	Still	Riesling	10	2	5	8	6	3	6	6	2		8	1	6	8	2	1
I	2017	Still	Riesling	7	2	6	8	6	7	7	6	8		3	6	2	4	7	1
I	2017	Still	Riesling	3	2	5	2	0	2	0	0	4		2	0	1	6	5	5
I	2017	Still	Riesling	5	2	6	6		5	3	5	2		6	1	2	4	0	2
I	2017	Still	Riesling	2	2	3	7	7	2	6	2	4		8	1	8	7	4	4
I	2017	Still	Riesling	9	2	5	3	4	7	4	0	5		5	5	3	6	5	6
I	2017	Still	Riesling	4	2	4	5	4	4	6	3	5		8	2	2	5	5	5
I	2017	Still	Riesling	1	2	2	6	4	2	6	1	4		9	1	2	7	2	3
J	2017	Still	Col_50#83	6	1	4	6	8	2	5	7	7		6	1	7	5	4	4

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
J	2017	Still	Col_50#83	8	2	1	4	3	1	3	6	3		7	4	4	3	3	3
J	2017	Still	Col_50#83	2	1	1	2	1	1	8	7	3		4	7	6	5	6	5
J	2017	Still	Col_50#83	8	1	1	7	8	3	3	1	7		4	1	0	6	6	6
J	2017	Still	Col_50#83	6	2	2	5	1	1	6	3	5		7	2	2	4	2	4
J	2017	Still	Col_50#83	4	1	3	5	7	0	0	0	8		6	4	0	4	7	7
J	2017	Still	Col_50#83	7	1	4	3	0	0	7	5	3		3	0	1	5	4	4
J	2017	Still	Col_50#83	10	2	2	7	6	4	7	7	5		5	3	7	7	5	6
J	2017	Still	Col_50#83	7	2	4	7	6	6	6	3	7		6	4	5	6	6	6
J	2017	Still	Col_50#83	11	1	5	7	3	6	7	1	7		5	4	5	7	4	5
J	2017	Still	Col_50#83	3	2	6	3	3	0	0	1	4		4	1	1	4	2	3
J	2017	Still	Col_50#83	1	1	5	9	9	6	0	0	9		7	2	1	8	6	6
J	2017	Still	Col_50#83	5	2	2	3	2	1	5	1	3		2	1	2	3	3	3
J	2017	Still	Col_50#83	5	1	4	6	5	6	4	2	6		4	1	7	6	3	3
J	2017	Still	Col_50#83	2	2	1	7	7	7	2	0	7		7	3	7	5	3	4
J	2017	Still	Col_50#83	10	1	5	9	8	4	2	4	9		5	4	4	6	5	8
J	2017	Still	Col_50#83	9	2	2	7	6	5	5	5	5		4	6	4	5	6	6
J	2017	Still	Col_50#83	4	2	5	6	2	5	5	3	6		6	2	2	6	6	6
J	2017	Still	Col_50#83	3	1	1	4	0	5	1	0	5		8	5	7	6	3	3
J	2017	Still	Col_50#83	1	2	3	5	4	3	7	1	7		6	2	7	7	3	5
J	2017	Still	Col_50#83	9	1	6	5	4	0	0	0	4		6	3	7	7	6	5
K	2017	Still	Col_50#83	6	1	4	8	4	7	4	3	8		4	1	6	3	3	5
K	2017	Still	Col_50#83	8	2	1	5	3	6	3	4	3		5	3	4	5	4	4
K	2017	Still	Col_50#83	2	1	1	9	9	9	4	4	9		2	7	4	6	7	8
K	2017	Still	Col_50#83	8	1	4	9	9	2	1	1	7		4	0	0	4	4	4
K	2017	Still	Col_50#83	6	2	4	4	1	0	7	7	1		10	0	4	2	0	0
K	2017	Still	Col_50#83	4	1	2	2	0	0	0	7	0		6	0	3	0	0	0
K	2017	Still	Col_50#83	7	1	4	4	6	5	0	0	3		4	0	1	4	3	5
K	2017	Still	Col_50#83	10	2	4	8	7	8	6	4	7		8	6	4	8	6	5
K	2017	Still	Col_50#83	7	2	4	7	7	6	5	3	6		6	5	3	5	7	7
K	2017	Still	Col_50#83	11	1	4	7	7	5	5	6	7		7	3	4	4	4	4
K	2017	Still	Col_50#83	3	2	5	6	4	4	0	0	6		5	1		5	5	6
K	2017	Still	Col_50#83	1	1	5	6	6	6	0	0	7		5	1	0	7	6	5
K	2017	Still	Col_50#83	5	2	3	4	3	3	4	3	3		6	1	2	3	2	3

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
K	2017	Still	Col_50#83	5	1	5	3	6	3	4	2	4		6	2	5	4	5	4
K	2017	Still	Col_50#83	2	2	1	4	6	2	6	0	6		6	6	1	6	6	7
K	2017	Still	Col_50#83	10	1	5	1	2	2	4	2	3		4	2	4	6	2	2
K	2017	Still	Col_50#83	9	2	5	5	4	5	4	5	5		3	7	4	5	6	6
K	2017	Still	Col_50#83	4	2	5	5	3	5	2	2	5		6	1	2	5	5	5
K	2017	Still	Col_50#83	3	1	1	4	1	3	0	0	1		9	5	8	3	3	2
K	2017	Still	Col_50#83	1	2	4	5	4	1	4	0	3		7	1	5	8	6	5
K	2017	Still	Col_50#83	9	1	4	6	5	0	5	0	6		7	3	7	7	7	7
Reference pinot gris	2017	Still	Pinot Gris	8	2	2	4	3	2	3	2	1		4	6	4	6	6	5
Reference pinot gris	2017	Still	Pinot Gris	6	2	4	8	5	0	6	3	7		4	6	1	5	7	7
Reference pinot gris	2017	Still	Pinot Gris	10	2	6	6	7	3	8	8	3		9	6	4	7	4	3
Reference pinot gris	2017	Still	Pinot Gris	7	2	2	5	7	5	5	6	5		4	7	2	3	6	6
Reference pinot gris	2017	Still	Pinot Gris	3	2	4	3	2	1	0	0	5		4	3	0	5	5	5
Reference pinot gris	2017	Still	Pinot Gris	5	2	3	4	6	5	0	4	3		2	2	4	4		5
Reference pinot gris	2017	Still	Pinot Gris	2	2	5	9	7	3	2	2	7		6	7	2	6	6	5
Reference pinot gris	2017	Still	Pinot Gris	9	2	4	4	6	6	3	4	5		4	4	4	5	5	6
Reference pinot gris	2017	Still	Pinot Gris	4	2	4	5	2	5	1	2	6		5	4	1	6	5	5
Reference pinot gris	2017	Still	Pinot Gris	1	2	5	5	3	2	2	0	3		5	8	5	7	2	2
Reference riesling	2017	Still	Riesling	8	2	2	2	3	2	4	2	2		4	4	4	5	4	4
Reference riesling	2017	Still	Riesling	6	2	3	5	5	3	1	1	5		7	3	1	5	3	4

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**Table 13**  
(continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference riesling	2017	Still	Riesling	10	2	7	3	8	8	4	7	8		7	8	5	7	8	8
Reference riesling	2017	Still	Riesling	7	2	4	4	6	7	4	3	6		5	4	2	6	5	5
Reference riesling	2017	Still	Riesling	3	2	6	5	1	5	2	0	7		6	0	0	7	6	6
Reference riesling	2017	Still	Riesling	5	2		6	5	2	3	7	6		7	3	2	4	3	5
Reference riesling	2017	Still	Riesling	2	2	3	6	2	2	2	0	3		6	2	7	7	3	4
Reference riesling	2017	Still	Riesling	9	2	7	7	4	5	3	0	5		5	5	3	4	5	6
Reference riesling	2017	Still	Riesling	4	2	5	5	1	5	4	1	5		5	3	2	6	6	6
Reference riesling	2017	Still	Riesling	1	2	2	7	5	4	4	1	6		7	5	3	7	7	7
A	2018	Still	Pinot Gris	1	1	5	5	6	4	2	0	5		5	0	1	4	5	5
A	2018	Still	Pinot Gris	2	1	3	7	2	6	3	0	3		6	3	2	6	3	2
A	2018	Still	Pinot Gris	3	1	1	2	1	2	3	0	3		3	2	1	3	4	4
A	2018	Still	Pinot Gris	4	1	5	7	2	7	0	0	7		9	0	6	3	4	4
A	2018	Still	Pinot Gris	5	1	6	7	4	4	7	6	6		6	2	3	5	3	4
A	2018	Still	Pinot Gris	6	1	1	6	5	4	6	5	5		4	4	3	5	5	5
A	2018	Still	Pinot Gris	7	1	6	6	4	6	1	2	5		6	3	2	6	3	2
A	2018	Still	Pinot Gris	8	1	2	2	5	3	6	5	3		8	3	6	5	4	3
A	2018	Still	Pinot Gris	9	1	2	6	4	6	2	1	4		5	1	1	5	3	3
A	2018	Still	Pinot Gris	10	1	6	5	1	5	1	1	5		6	2	2	4	6	6
A	2018	Still	Pinot Gris	11	1	2	6	6			5			7	1	2	3	3	3
A	2018	Still	Pinot Gris	12	1	2	2	1	2	2	1	3		3	3	1	3	2	4
A	2018	Still	Pinot Gris	13	1	4	5	4	5	4	4	5		5	2	1	2	5	3
A	2018	Still	Pinot Gris	14	1	5	4	5	4	2	0	6		4	3	0	6	6	6
A	2018	Still	Pinot Gris	15	1	5	6	3	7	2	2	6		6	3	2	5	5	7
A	2018	Still	Pinot Gris	16	1	3	5	2	6	3	1	6		6	3	5	2	5	5
A	2018	Still	Pinot Gris	17	1	4	5	5	5	1	3	4		5	6	6	5	5	3
A	2018	Still	Pinot Gris	18	1	3	6	5	3	3	0	6		7	7	4	7	5	3
A	2018	Still	Pinot Gris	1	2	3	5	6	6	4	1	5		6	2	0	5	4	4

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
A	2018	Still	Pinot Gris	2	2	1	6	5	3	2	2	5		3	1	2	5	4	4
A	2018	Still	Pinot Gris	3	2	1	2	1	0	3	1	3		7	0	0	2	3	3
A	2018	Still	Pinot Gris	5	2	4	6	4	5	3	3	6		6	1	1	3	4	4
A	2018	Still	Pinot Gris	6	2	2	8	2	7	0	0	6		7	0	2	3	4	4
A	2018	Still	Pinot Gris	7	2	2	4	3	1	1	5	3		6	1	4	3	2	3
A	2018	Still	Pinot Gris	8	2	2	5	6	3	1	2	7		6	1	0	5	7	7
A	2018	Still	Pinot Gris	9	2	5	3	3	3	0	0	7		7	0	1	6	7	7
A	2018	Still	Pinot Gris	10	2	5	5	5	5	7	1	7		6	1	1	6	4	5
A	2018	Still	Pinot Gris	11	2	2	3	4	3	5	4	4		6	3	3	4	4	3
A	2018	Still	Pinot Gris	4	2	2	6	8	2	3	0	6		8	1	0	6	6	6
A	2018	Still	Pinot Gris	12	2	3	6	2	5	0	2	6		4	2	2	3	3	5
A	2018	Still	Pinot Gris	13	2	2	4	5	5	0	1	4		6	3	3	4	6	6
A	2018	Still	Pinot Gris	14	2	3	7	2	7	1	0	6		8	8	7	6	2	2
A	2018	Still	Pinot Gris	15	2	5	4	0	0	7	4	5		7	0	0	5	2	3
B	2018	Still	Riesling	1	1	6	7	7	3	0	0	7		5	1	1	7	7	7
B	2018	Still	Riesling	2	1	6	7	0	7	2	1	4		4	2	1	7	6	5
B	2018	Still	Riesling	3	1	1	5	3	5	0	0	6		6	1	1	6	6	6
B	2018	Still	Riesling	4	1	4	2	1	1	0	0	3		7	1	4	1	2	
B	2018	Still	Riesling	5	1	6	7	4	4	2	4	5		7	3	2	4	4	4
B	2018	Still	Riesling	6	1	3	6	9	8	1	4	7		8	5	2	4	7	7
B	2018	Still	Riesling	7	1	3	2	3	4	1	3	3		5	2	0	4	2	2
B	2018	Still	Riesling	8	1	4	7	5	6	8	6	5		7	3	7	4	4	5
B	2018	Still	Riesling	9	1	3	7	2	2	7	2	5		8	1	4	6	4	5
B	2018	Still	Riesling	10	1	6	6	1	5	2	4	5		6	1	2	6	6	6
B	2018	Still	Riesling	11	1	4	5	5	2	2	5	6		6	1	2	2	4	4
B	2018	Still	Riesling	12	1	3	4	4	4	1	1	4		2	4	1	3	2	4
B	2018	Still	Riesling	13	1	4	4	5	2	4	2	3		6	0	4	5	3	3
B	2018	Still	Riesling	14	1	4	6	6	2	2	0	6		7	3	2	5	5	5
B	2018	Still	Riesling	15	1	4	4	4	1	0	0	4		6	2	2	4	4	5
B	2018	Still	Riesling	16	1	6	3	2	7	4	2	5		6	2	3	7	3	5
B	2018	Still	Riesling	17	1	5	5	7	5	2	3	5		6	3	2	4	3	4
B	2018	Still	Riesling	18	1	5		2	4	7	0	6		6	1	8	7	1	1
B	2018	Still	Riesling	1	2	4	8	1	7	3	1	6		7	1	3	4	5	5
B	2018	Still	Riesling	2	2	2	6	3	1	1	5	3		7	1	3	6	5	5

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**Table 13** (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
B	2018	Still	Riesling	3	2	1	1	1	1	0	0	1		3	1	1	1	1	1
B	2018	Still	Riesling	5	2	5	6		4	5	4	4		7	0	1	6	4	4
B	2018	Still	Riesling	6	2	4	6	6	1	1	3	6		7	0	3	7	5	6
B	2018	Still	Riesling	7	2	3	4	4	1	2	4	4		4	2	1	2	2	2
B	2018	Still	Riesling	8	2	2	6	2	5	1	4	6		1	2	3	4	4	5
B	2018	Still	Riesling	9	2	4	3	3	3	0	1	6		4	1	3	3	4	5
B	2018	Still	Riesling	10	2	6	6	8	4	2	0	5		4	3	1	6	4	4
B	2018	Still	Riesling	11	2	4	5	4	4	1	3	4		5	3	5	5	5	4
B	2018	Still	Riesling	4	2		4	0	0	0	8	3		8	0	4	1	3	3
B	2018	Still	Riesling	12	2	3	4	4	1	0	0	5		4	2	5	2	3	3
B	2018	Still	Riesling	13	2	2	3	4	4	1	0	4		5	2	6	6	6	6
B	2018	Still	Riesling	14	2	6	6	4	7	7	0	6		7	1	8	7	3	3
B	2018	Still	Riesling	15	2	4	2	2	6	2	1	4		9	1	1	3	2	2
C	2018	Still	Pinot Gris	1	1	5	4	6	3	0	2	4		5	2	1	5	5	4
C	2018	Still	Pinot Gris	2	1	6	6	0	3	0	0	3		4	5	0	7	6	6
C	2018	Still	Pinot Gris	3	1	1	5	4	3	0	2	4		1	5	1	2	3	5
C	2018	Still	Pinot Gris	4	1	5	7	4	6	0	0	7		7	0	5	5	6	6
C	2018	Still	Pinot Gris	5	1	7	6	6	4	6	6	6		4	4	3	5	5	6
C	2018	Still	Pinot Gris	6	1	1	5	4	4	2	5	5		6	5	4	7	6	5
C	2018	Still	Pinot Gris	7	1	5	4	6	5	1	1	6		3	6	0	4	3	5
C	2018	Still	Pinot Gris	8	1	5	3	2	2	6	7	4		6	3	3	4	4	5
C	2018	Still	Pinot Gris	9	1	2	4	3	5	2	0	3		7	2	0	8	6	4
C	2018	Still	Pinot Gris	10	1	5	7	6	5	0	2	7		5	6	1	4	6	7
C	2018	Still	Pinot Gris	11	1	2	3	3	3	4	5			3	1	2	3	4	4
C	2018	Still	Pinot Gris	12	1	2	1	1	1	2	1	1		4	0	1	0	1	1
C	2018	Still	Pinot Gris	13	1	6	5	4	4	6	6	5		4	1	2	2	3	4
C	2018	Still	Pinot Gris	14	1	5	4	4	2	6	0	6		4	5	1	5	5	5
C	2018	Still	Pinot Gris	15	1	5	3	4	4	2		6		6	6	2	5	6	6
C	2018	Still	Pinot Gris	16	1	6	2	2	4	5	3	3		3	3	2	4	6	3
C	2018	Still	Pinot Gris	17	1	4	7	8	5	2	4	5		8	5	7	4	4	6
C	2018	Still	Pinot Gris	18	1	4	7	1	6	4	0	2		6	4	7	7	2	4
C	2018	Still	Pinot Gris	1	2	4	6	5	2	3		5		3	1	2	6	6	6
C	2018	Still	Pinot Gris	2	2	2	4	2	1	5	4	5		4	5	1	6	5	5
C	2018	Still	Pinot Gris	3	2	1	2	1	3	0	0	3		2	3	2	2	2	3
C	2018	Still	Pinot Gris	5	2	5	6	5	5	2	0	6		6	6	0	7	6	6

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
C	2018	Still	Pinot Gris	6	2	3	6	2	6	2	2	6		6	1	1	7	7	6
C	2018	Still	Pinot Gris	7	2	3	3	2	1	2	4	3		3	2	4	5	2	2
C	2018	Still	Pinot Gris	8	2	3	2	3	2	3	1	3		4	3	1	5	5	5
C	2018	Still	Pinot Gris	9	2	6	4	2	5	0	0	7		5	2	1	1	4	5
C	2018	Still	Pinot Gris	10	2	7	7	1	1	6	7	3		4	3	1	5	3	4
C	2018	Still	Pinot Gris	11	2	2	3		6	1		6		4	5	6	7	6	6
C	2018	Still	Pinot Gris	4	2	3	7	7	0	0	0			8	0	0	8	8	7
C	2018	Still	Pinot Gris	12	2	3	6	3	4	0	2	4		5	5	2	2	4	4
C	2018	Still	Pinot Gris	13	2	2	2	3	3	0	1	3		4	6	5	4	3	4
C	2018	Still	Pinot Gris	14	2	5	6	5	1	1	6	6		4	4	9	3	1	2
C	2018	Still	Pinot Gris	15	2	3	5	2	3	1	1	2		7	2	2	4	0	0
D	2018	Still	Pinot Gris	1	1	5	4	3	2	0	1	4		5	0	3	4	4	4
D	2018	Still	Pinot Gris	2	1	5	5	4	0	2	0	5		4	6	6	7	5	5
D	2018	Still	Pinot Gris	4	1	5	4	1	3	0	0	7		7	1	3	3	5	5
D	2018	Still	Pinot Gris	5	1	4	7	5	3	7	6	5		8	2	6	6	3	3
D	2018	Still	Pinot Gris	6	1	1	4	6	6	8	4	5		6	3	7	6	6	
D	2018	Still	Pinot Gris	7	1	4	3	3	3	2	5	3		1	5	0	2	5	4
D	2018	Still	Pinot Gris	8	1	4	5	3	3	7	7	6		8	2	6	3	3	4
D	2018	Still	Pinot Gris	9	1	2	6	5	5	1	1	4		5	2	1	4	4	4
D	2018	Still	Pinot Gris	10	1	5	4	2	4	1	1	4		5	5	3	4	5	5
D	2018	Still	Pinot Gris	11	1	2	8	5	7		5			4	1	2	5	7	7
D	2018	Still	Pinot Gris	12	1	2	2	1	2	2	1	2		5	3	1	2	4	5
D	2018	Still	Pinot Gris	13	1	5	3	3	4	6	5	4		6	1	1	4	2	3
D	2018	Still	Pinot Gris	14	1	6	6	4	0	6	0	6		5	5	4	6	4	5
D	2018	Still	Pinot Gris	15	1	5	1	3	2	1	2	3		5	4	3	5	4	4
D	2018	Still	Pinot Gris	16	1	5	7	5	9	3	1	8		7	3	5	6	5	7
D	2018	Still	Pinot Gris	17	1	4	5	6	6	1	3	6		7	6	5	2	5	4
D	2018	Still	Pinot Gris	18	1	2	4	1	4	5	0	5		5	2	8	7	2	3
D	2018	Still	Pinot Gris	1	2	3	5		1	2	6			7	2	4	6		3
D	2018	Still	Pinot Gris	2	2	2	2	4	2	0	1	2		5	2	5	6	6	3
D	2018	Still	Pinot Gris	3	2	1	2	1	0	0	2	1		5	3	2	4	3	5
D	2018	Still	Pinot Gris	5	2	4	6	7	4	2	2	6		5		3	3	3	4
D	2018	Still	Pinot Gris	6	2	3	6	2	6	2	2	6		6	1	1	7	7	7
D	2018	Still	Pinot Gris	7	2	4	1	1	1	2	3	1		3	2	1	3	2	2
D	2018	Still	Pinot Gris	8	2	3	2	3	3	4	1	4		4	3	1	4	4	4
D	2018	Still	Pinot Gris	9	2	6	6	2	6	0	2	8		5	5	3	3	4	6
D	2018	Still	Pinot Gris	10	2	6	7	8	6	5	0	7		4	1	1	7	7	7
D	2018	Still	Pinot Gris	11	2	2	4	5	4	4	4	5		4	3	3	3	3	3

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**Table 13**  
(continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
D	2018	Still	Pinot Gris	4	2	2	7	7	4	0	0	6		6	0	3	4	4	4
D	2018	Still	Pinot Gris	12	2	3	6	6	3	0	0	5		5	4	5	2	3	4
D	2018	Still	Pinot Gris	13	2	3	1	1	1	0	0	1		4	6	6	6	4	4
D	2018	Still	Pinot Gris	14	2	5	1	0	3	1	0	4		8	5	8	6	2	3
D	2018	Still	Pinot Gris	15	2	3	5	2	0	5	1	3		2	3	0	3	3	4
E	2018	Still	Pinot Blanc	1	1	5	6	3	6	0	0	6		6	1	1	6	6	6
E	2018	Still	Pinot Blanc	2	1	5	7	1	3	1	0	4		5	4	2	5	5	4
E	2018	Still	Pinot Blanc	3	1	1	5	2	3	2	0	4		7	2	3	5	5	5
E	2018	Still	Pinot Blanc	4	1	4	5	3	3	0	0	5		7	1	0	3	5	6
E	2018	Still	Pinot Blanc	5	1	3	4	4	2	4	3	4		4	5	4	6	5	5
E	2018	Still	Pinot Blanc	6	1	4	7	6	4	8	8	8		7	6	3	5	6	7
E	2018	Still	Pinot Blanc	7	1	1	3	4	5	0	1	4		1	5	0	4	3	4
E	2018	Still	Pinot Blanc	8	1	3	4	6	3	6	7	6		7	3	7	3	4	4
E	2018	Still	Pinot Blanc	9	1	1	5	3	6	1	0	2		4	0	2	6	3	5
E	2018	Still	Pinot Blanc	10	1	4	4	1	3	2	1	4		6	1	1	4	4	4
E	2018	Still	Pinot Blanc	11	1	1	4	5	4	5	2	4		2	0	2	4	4	4
E	2018	Still	Pinot Blanc	12	1	4	4	2	3	1	1	3		2	2	1	2	4	4
E	2018	Still	Pinot Blanc	13	1	5	5	5	6	4	2	6		6	1	2	4	4	5
E	2018	Still	Pinot Blanc	14	1	6	4	6	1	2	0	6		5	2	2	5	5	6
E	2018	Still	Pinot Blanc	15	1	4	6	2	2	0	0	3		3	1	1	5	6	7

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**Table 13**  
(continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
E	2018	Still	Pinot Blanc	16	1	6	3	2	6	6	6	4		6	7	0	6	4	3
E	2018	Still	Pinot Blanc	17	1	5	6	8	4	1	5	6		4	6	1	5	6	6
E	2018	Still	Pinot Blanc	18	1	2	4	3	7	6	0	5		4	7	2	5	3	4
E	2018	Still	Pinot Blanc	1	2	6	3	0	0	4	6			1	3	1	2	3	2
E	2018	Still	Pinot Blanc	2	2	1	3	1	2	0	2	3		5	0	3	6	5	5
E	2018	Still	Pinot Blanc	3	2	1	3	0	1	2	0	2		5	1	0	2	1	2
E	2018	Still	Pinot Blanc	5	2	4	7	6	5	2	2	6		7	1	1	7	7	7
E	2018	Still	Pinot Blanc	6	2	4	6	3	2	0	4	4		7	0	3	6	4	4
E	2018	Still	Pinot Blanc	7	2	2	2	1	2	0	2	2		3	0	2	3	2	2
E	2018	Still	Pinot Blanc	8	2	2	6	3	2	2	3	5		1	1	3	2	4	4
E	2018	Still	Pinot Blanc	9	2	6	5	4	4	0	1	5		5	4	1	5	6	5
E	2018	Still	Pinot Blanc	10	2	4	6	7	2	6	0	6		4	2	1	5	6	6
E	2018	Still	Pinot Blanc	11	2	4	5	4	6	5	3	5		6	4	5	7	5	6
E	2018	Still	Pinot Blanc	4	2	3	4	8	0	0	0	5		7	2	0	5	4	4
E	2018	Still	Pinot Blanc	12	2	3	4	3	2	3	2	4		3	2	3	3	4	5
E	2018	Still	Pinot Blanc	13	2	2	4			2	0	3		5	3	3	4	4	4
E	2018	Still	Pinot Blanc	14	2	4		7	7	1	0	6		6	6	7	7	3	3

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
E	2018	Still	Pinot Blanc	15	2	4	2	1	1	4	1	2		9	1	1	3	1	1
F	2018	Still	Pinot Blanc	1	1	5	7	4	6	0	2	5		5	2	1	5	5	5
F	2018	Still	Pinot Blanc	2	1	5	6	0	3	2	2	5		4	3	0	5	3	4
F	2018	Still	Pinot Blanc	3	1	1	2	1	1	2	1	3		6	2	6	7	3	3
F	2018	Still	Pinot Blanc	4	1	4	3	2	2	0	0	3		8	0	3	4	3	4
F	2018	Still	Pinot Blanc	5	1	3	5	3	5	3	5	5		4	4	4	5	4	5
F	2018	Still	Pinot Blanc	6	1	4	7	6	5	4	4	4		5	7	2	2	6	7
F	2018	Still	Pinot Blanc	7	1	2	3	2	3	0	3	3		2	4	0	2	3	3
F	2018	Still	Pinot Blanc	8	1	3	6	4	5	7	7	6		6	5	7	2	5	3
F	2018	Still	Pinot Blanc	9	1	1	7	2	2	2	0	5		7	0	1	6	5	4
F	2018	Still	Pinot Blanc	10	1	4	5	1	3	2	3	4		6	1	2	6	5	5
F	2018	Still	Pinot Blanc	11	1	2		2	1	5	1	1		4	0	4	3	4	4
F	2018	Still	Pinot Blanc	12	1	2	3	2	2	2	2	2		2	1	3	3	1	2
F	2018	Still	Pinot Blanc	13	1	5	5	6	3	5	4	5		4	1	3	3	4	4
F	2018	Still	Pinot Blanc	14	1	5	6	5	0	2	0	6		4	3	1	5	5	6
F	2018	Still	Pinot Blanc	15	1	4	1	5	2	0	0	3		4	1	1	4	4	4
F	2018	Still	Pinot Blanc	16	1	6	6	4	8	5	2	6		7	5	1	7	5	5
F	2018	Still	Pinot Blanc	17	1	3	7	8	6	1	3	7		4	5	3	4	5	6

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
F	2018	Still	Pinot Blanc	18	1	5	7	4	4	6	0	8		8	4	7	7	2	3
F	2018	Still	Pinot Blanc	1	2	5	7			3	6	3		1	4	1	2	3	3
F	2018	Still	Pinot Blanc	2	2	2	2	2	3	0	4	2		5	0	2	5	5	4
F	2018	Still	Pinot Blanc	3	2	1	1	0	1	2	0	2		4	1	4	2	1	2
F	2018	Still	Pinot Blanc	5	2	5	7	5	4	3	1	6		6	1	1	7	8	8
F	2018	Still	Pinot Blanc	6	2	4	6	1	7	0	2	6		4	2	0	5	5	6
F	2018	Still	Pinot Blanc	7	2	2	1	1	0	0	3	2		4	1	4	3	2	2
F	2018	Still	Pinot Blanc	8	2	2	4	3	2	1	3	6		2	0	3	2	5	6
F	2018	Still	Pinot Blanc	9	2	6	6	3	3	0	0	6		7	4	1	7	6	6
F	2018	Still	Pinot Blanc	10	2	4	6	6	4	5	0	6		4	2	2	6	7	7
F	2018	Still	Pinot Blanc	11	2	4	4	6	3	4	3	4		4	3	4	4	4	4
F	2018	Still	Pinot Blanc	4	2	4	3	4	4	0	0	2		4	0	3	3	3	2
F	2018	Still	Pinot Blanc	12	2	4	3	2	4	3	1	4		4	3	6	2	3	4
F	2018	Still	Pinot Blanc	13	2	2								4	5	4	4	3	3
F	2018	Still	Pinot Blanc	14	2	4	5	5	0	8	0	7		5	5	9	8	1	1
F	2018	Still	Pinot Blanc	15	2	4	4	1	1	4	3	1		7	2	1	2	3	3
G	2018	Still	Riesling	1	1	5	5	6	3	0	2	5		5	0	2	5	5	5
G	2018	Still	Riesling	2	1	6	4	0	2	3	0	4		5	2	0	8	6	5
G	2018	Still	Riesling	3	1	1	2	0	2	1	0	2		5	3	0	5	4	4

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
G	2018	Still	Riesling	4	1	6	3	1	2	1	0	7		7	0	6	4	4	4
G	2018	Still	Riesling	5	1	7	7	6	7	3	3	6		4	5	3	6	6	6
G	2018	Still	Riesling	6	1	4	5	7	7	5	6	5		6	6	5	7	6	6
G	2018	Still	Riesling	7	1	4	2	4	3	1	3	4		1	2	0	2	1	2
G	2018	Still	Riesling	8	1	4	6	7	3	6	6	6		6	6	6	6	6	7
G	2018	Still	Riesling	9	1	3	6	3	3	1	0	3		4	1	0	6	3	
G	2018	Still	Riesling	10	1	5	6	1	4	0	2	4		7	1	1	5	6	6
G	2018	Still	Riesling	11	1		6	5	3	2	5	5		7	1	3	3	3	3
G	2018	Still	Riesling	12	1	5	4	2	4	1	1	4		1	3	1	3	3	4
G	2018	Still	Riesling	13	1	5	6	5	3	4	3	4		4	2	3	6	6	6
G	2018	Still	Riesling	14	1	6	6	6	0	0	0	5		6	4	2	4	4	4
G	2018	Still	Riesling	15	1	4	4	3	2	0	0	4		6	2	2	5	5	5
G	2018	Still	Riesling	16	1	5	10	9	6	0	0	8		8	0	2	8	6	7
G	2018	Still	Riesling	17	1	3	7	8	5	1	2	7		7	4	7	6	5	4
G	2018	Still	Riesling	18	1	6	5	1	5	5	0	7		3	5	7	5	2	2
G	2018	Still	Riesling	1	2	4	6		6	6		5		6	1	4	3	3	4
G	2018	Still	Riesling	2	2	2	4	1	5	0	1	5		3	0	6	4	2	2
G	2018	Still	Riesling	3	2	1	1	0	1	1	0	1		4	1	0	2	2	3
G	2018	Still	Riesling	5	2	6	6	5	5	5	1	6		6	1	0	6	6	6
G	2018	Still	Riesling	6	2	3	4	3	6	0	2	5		7	0	2	4	5	5
G	2018	Still	Riesling	7	2	2	6	4	3	1	3	4		2	1	1	3	3	4
G	2018	Still	Riesling	8	2	2	3	2	2	3	2	3		2	1	3	3	3	3
G	2018	Still	Riesling	9	2	7	3	0	2	0	0	3		7	1	1	6	5	5
G	2018	Still	Riesling	10	2	4	4	4	3	6	0	7		4	1	1	7	4	4
G	2018	Still	Riesling	11	2	3	5	4	5	3	3	5		5	3	4	5	3	4
G	2018	Still	Riesling	4	2	3	7	2	8	0	0	7		8	2	0	8	7	6
G	2018	Still	Riesling	12	2	5	6	7	2	2	0	6		2	2	4	1	2	4
G	2018	Still	Riesling	13	2	3	3	2	2	0	0	2		6	2	5	3	3	3
G	2018	Still	Riesling	14	2	6		0	7	2	0	3		8	6	9	5	3	3
G	2018	Still	Riesling	15	2	4	4	2	3	1	1	4		8	1	1	4	2	2
H	2018	Still	Riesling	1	1	5	4	3	2	0	2	4		5	0	2	4	4	4
H	2018	Still	Riesling	2	1	7	5	2	5	1	0	3		5	1	0	7	6	6

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**Table 13**  
(continued)

#code	Year	Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
H	2018	Still	Riesling	3	1	1	4	1	4	2	0	1		6	0	2	3	3	3
H	2018	Still	Riesling	4	1	6	6	3	7	0	1	4		6	1	2	2	3	3
H	2018	Still	Riesling	5	1	4	3	0	3	1	3	2		3	4	2	5	4	4
H	2018	Still	Riesling	6	1	3	6	8	7	6	6	5		6	6	2	2	4	4
H	2018	Still	Riesling	7	1	4	2	1	2	0	3	2		1	2	0	1	1	1
H	2018	Still	Riesling	8	1	3	6	3	5	7	7	4		6	4	4	3	4	5
H	2018	Still	Riesling	9	1	2	7	4	5	3	1	6		3	0	2	4	2	2
H	2018	Still	Riesling	10	1	6	6	1	3	2	3	3		5	0	2	5	5	4
H	2018	Still	Riesling	11	1	2	3	4	1	3	5	6		4	1	2	3	5	5
H	2018	Still	Riesling	12	1	4	5	4	6	2	1	6		2	5	1	3	4	6
H	2018	Still	Riesling	13	1	4	5	5	3	6	4	4		7	0	1	4	3	4
H	2018	Still	Riesling	14	1	5	6	6	4	0	0	5		2	3	2	3	3	3
H	2018	Still	Riesling	15	1	4	4	1	4	0	0	3		6	1	3	4	4	5
H	2018	Still	Riesling	16	1	2	8	7	10	0	0	8		6	0	0	8	8	8
H	2018	Still	Riesling	17	1	4	6	7	5	2	4	6		6	4	5	6	4	4
H	2018	Still	Riesling	18	1	5		0	3	6	0	3		6	0	8	6	2	2
H	2018	Still	Riesling	1	2	4	4		5	5		4		3	0	3	4	4	4
H	2018	Still	Riesling	2	2	3	4	2	4	0	1	2		3	0	1	3	2	2
H	2018	Still	Riesling	3	2	1	1	1	1	0	0	1		5	2	0	2	2	2
H	2018	Still	Riesling	5	2	5		5	4	4	1	5		6	1	1	6	5	6
H	2018	Still	Riesling	6	2	4	7	7	3	0	2	7		7	0	3	8	6	6
H	2018	Still	Riesling	7	2	2	3	3	2	0	2	3		1	2	2	3	2	2
H	2018	Still	Riesling	8	2	4	6	1	0	5	3	5		2	1	4	3	4	4
H	2018	Still	Riesling	9	2	6	6	1	5	0	1	6		6	2	2	4	4	4
H	2018	Still	Riesling	10	2	7	8	8	5	3	0	7		5	3	2	6	5	5
H	2018	Still	Riesling	11	2	3	5	6	6	3	3	5		6	5	7	6	5	5
H	2018	Still	Riesling	4	2	3	9	8	8	0	0	8		7	0	0	6	6	7
H	2018	Still	Riesling	12	2	4	5	4	2	1	0	5		3	2	2	4	2	3
H	2018	Still	Riesling	13	2	2	4	4	4	0	0	4		5	2	3	4	4	4
H	2018	Still	Riesling	14	2	6	3	1	8	1	0	3		4	2	8	4	1	3
H	2018	Still	Riesling	15	2	3	5	3	5	1	1	6		9	1	1	3	2	3
I	2018	Still	Riesling	1	1	4	4	3	2	0	2	3		6	0	4	4	4	3

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**Table 13** (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
I	2018	Still	Riesling	2	1	5	3	1	0	4	0	3		7	3	0	8	4	4
I	2018	Still	Riesling	3	1	1	1	1	1	1	0	2		5	2	0	6		5
I	2018	Still	Riesling	4	1	2	2	1	1	0	0	6		4	1	0	0	1	1
I	2018	Still	Riesling	5	1	4	5	4	4	3	4	4		6	3	2	4	4	4
I	2018	Still	Riesling	6	1	2	6	5	5	6	2	3		8	6	5	7	6	5
I	2018	Still	Riesling	7	1	2	1	4	3	0	1	3		4	2	1	2	2	1
I	2018	Still	Riesling	8	1	1	4	7	4	6	8	5		7	5	4	2	3	2
I	2018	Still	Riesling	9	1	1	3	2	1		5	1		7	0	9	8	2	2
I	2018	Still	Riesling	10	1	4	4	1	3	0	2	3		7	1	1	4	4	3
I	2018	Still	Riesling	11	1	1	3	3	1	4	2	3		8	1	3	3	2	2
I	2018	Still	Riesling	12	1	3	4	2	2	2	2	2		2	2	1	2	1	2
I	2018	Still	Riesling	13	1	3	5	6	3	4	3	4		5	1	5	5	3	3
I	2018	Still	Riesling	14	1	3	7	0	4	7	0	6		7	4	0	5	4	4
I	2018	Still	Riesling	15	1	1	1	5	0	0	0	3		6	1	1	5	5	5
I	2018	Still	Riesling	16	1	2	1	3	2	3		0		6	0	3	3	1	1
I	2018	Still	Riesling	17	1	3	4	5	4	1	2	3		8	3	4	5	4	2
I	2018	Still	Riesling	18	1	1	2	0	2	3	0	4		8	4	6	7	7	7
I	2018	Still	Riesling	1	2	3	6			3	6	3		6	1	3	4	4	3
I	2018	Still	Riesling	2	2	1	3	5	2	2	1	3		8	0	1	8	6	5
I	2018	Still	Riesling	3	2	1	1	0	1	1	0	1		9	1	0	2	3	2
I	2018	Still	Riesling	5	2	4	6	6	4	1	2	6		7	1	1	6	6	6
I	2018	Still	Riesling	6	2	2	4	2	6	0	1	5		7	0	2	5	5	5
I	2018	Still	Riesling	7	2	2	3	3	1	1	3	2		5	1	1	4	3	3
I	2018	Still	Riesling	8	2	1	2	1	0	4	0	3		2	0	5	3	1	2
I	2018	Still	Riesling	9	2	2	5	1	5	0	1	6		7	0	0	8	7	7
I	2018	Still	Riesling	10	2	4	6	8	6	1	0	8		5	1	0	7	6	6
I	2018	Still	Riesling	11	2		4	4	3	3	1	4		6	2	6	8	4	4
I	2018	Still	Riesling	4	2		6	0	7	0	0	6		9	0	2	3	3	4
I	2018	Still	Riesling	12	2	3	7	7	3	0	0	6		4	2	2	3	4	5
I	2018	Still	Riesling	13	2	2	2	2	2	0	0	2		7	1	5	4	3	3
I	2018	Still	Riesling	14	2	3	6	6	6	5	0	8		7	2	5	8	5	7
I	2018	Still	Riesling	15	2	1	4	8	2	1	2	6		8	2	1	3	2	3

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
J	2018	Still	Col_50#83	1	1	5	5	6	6	0	1	6		7	0	3	5	6	6
J	2018	Still	Col_50#83	2	1	6	6	0	5	2	0	4		5	4	1	6	4	4
J	2018	Still	Col_50#83	3	1	1	2	1	0	0	1	4		1	0	2	3	2	
J	2018	Still	Col_50#83	4	1	4	4	1	3	0	0	7		7	0	0	5	8	6
J	2018	Still	Col_50#83	5	1	3	5	4	3	4	4	5		7	3	2	4	4	3
J	2018	Still	Col_50#83	6	1	3	6	7	7	2	7	6		7	6	4	4	5	5
J	2018	Still	Col_50#83	7	1	2	4	3	6	1	3	5		2	5	1	4	3	3
J	2018	Still	Col_50#83	8	1	2	6	3	4	8	7	6		7	5	7		5	4
J	2018	Still	Col_50#83	9	1	2	2	5	2	3	5	4		3	0	2	7	2	
J	2018	Still	Col_50#83	10	1	4	5	1	3	1	2	4		5	1	2			
J	2018	Still	Col_50#83	11	1	1	2	2	2	5	4	5		6	1	4	4	4	4
J	2018	Still	Col_50#83	12	1	2	3	2	3	1	2	3		2	1	2	2	2	2
J	2018	Still	Col_50#83	13	1	3	6	5	3	4	4	5		5	1	3	5	4	4
J	2018	Still	Col_50#83	14	1	3	3	3	0	0	1	3		5	2	1	4	3	3
J	2018	Still	Col_50#83	15	1	4	5	5	2	0	0	5		4	1	2	3	4	3
J	2018	Still	Col_50#83	16	1	5	6	4	8	0	0	7		3	6	0	2	2	4
J	2018	Still	Col_50#83	17	1	5	6	7	6	1	1	6		4	3	2	5	5	5
J	2018	Still	Col_50#83	18	1	3	6	8	7	6	0	8		4	4	2	4	4	5
J	2018	Still	Col_50#83	1	2	3	7	5		3	6	4		6	1	5	6	2	3
J	2018	Still	Col_50#83	2	2	1	3	1	1	1	0	3		3	0	2	3	4	2
J	2018	Still	Col_50#83	3	2	1	1	0	0	1	0	1		3	2	0	1	2	2
J	2018	Still	Col_50#83	5	2	4	4	3	2	4	2	4		5	1	1	3	4	4
J	2018	Still	Col_50#83	6	2	3	6	5	4	0	1	6		6	0	4	5	5	5
J	2018	Still	Col_50#83	7	2	3	2	2	1	0	2	2		2	1	0	1	2	1
J	2018	Still	Col_50#83	8	2	1	4	1	1	3	2	3		2	0	0	1	4	4
J	2018	Still	Col_50#83	9	2	6	4	4	5	0	0	6		4	2	1	4	4	4
J	2018	Still	Col_50#83	10	2	3	5	4	1	7	0	6		3	4	1	6	6	6
J	2018	Still	Col_50#83	11	2	4	5	3	4	5	3	4		6	3	6	6	5	5
J	2018	Still	Col_50#83	4	2	2	4	0	3	0	2	3		6	0	2	7	5	5
J	2018	Still	Col_50#83	12	2	4	5	4	1	0	0	5		3	2	3	2	2	3
J	2018	Still	Col_50#83	13	2	2	3	3	2	1	0			4	3	4	3	3	3
J	2018	Still	Col_50#83	14	2	2	2	8	6	3	0	7		4	5	6	3	2	3

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
J	2018	Still	Col_50#83	15	2	2	3	1	1	3	3	2		8	1	1	3	2	3
K	2018	Still	Col_50#83	1	1	5	4	7	1	0	3	4		7	0	4	4	4	4
K	2018	Still	Col_50#83	2	1	5	7	1	7	2	0	5		5	5	4	3	4	4
K	2018	Still	Col_50#83	3	1	1	4	1	1	0	0	2		4	4	1	4	5	4
K	2018	Still	Col_50#83	4	1	4	4	2	4	0	1	6		4	1	0	3	3	3
K	2018	Still	Col_50#83	5	1	4	6	4	2	4	5	4		6	5	2	5	5	4
K	2018	Still	Col_50#83	6	1	4	6	8	4	4	7	7		6	8	4	5	6	6
K	2018	Still	Col_50#83	7	1	2	4	1	4	0	3	3		2	4	0	3	2	3
K	2018	Still	Col_50#83	8	1	2	7	4	4	7	7	6		7	7	8	4	7	7
K	2018	Still	Col_50#83	9	1	3	3	6	2	3	1	4		5	0	1	4	6	4
K	2018	Still	Col_50#83	10	1	4	5	1	5	2	2	5		5	1	2	6	6	6
K	2018	Still	Col_50#83	11	1	2	4	2	2	3	5	4		6	1	3	4	6	5
K	2018	Still	Col_50#83	12	1	3	4	4	3	1	1	4		1	2	1	3	3	3
K	2018	Still	Col_50#83	13	1	3	4	4	2	5	4	4		4	1	6	5	4	4
K	2018	Still	Col_50#83	14	1	3	5	4	0	3	3	3		4	4	3	6	4	4
K	2018	Still	Col_50#83	15	1	4	5	5	2	0	0	5		3	1	2	4	3	3
K	2018	Still	Col_50#83	16	1	5	4	6	3	0	0	7		6	4	2		3	4
K	2018	Still	Col_50#83	17	1	5	5	6	7	2	2	7		5	6	2	6	6	6
K	2018	Still	Col_50#83	18	1	3	3	5	7	7	0	8		6	6	5	5	4	3
K	2018	Still	Col_50#83	1	2	3	7		6	3		5		7	0	4	5	3	3
K	2018	Still	Col_50#83	2	2	2	1	1	1	2	1	1		2	1	3	7	8	2
K	2018	Still	Col_50#83	3	2	1	1	0	0	1	0	1		4	1	0	2	2	2
K	2018	Still	Col_50#83	5	2	5	6	6	6	2	1	6		7	2	1	6	6	7
K	2018	Still	Col_50#83	6	2	3	7	6	3	0	2	7		6	0	5	6	5	5
K	2018	Still	Col_50#83	7	2	4	3	3	2	0	2	3		1	0	3	3	1	1
K	2018	Still	Col_50#83	8	2	1	2	3	2	3	1	5		1	0	1	3	5	6
K	2018	Still	Col_50#83	9	2	6	7	4	4	1	2	7		6	2	1	7	7	7
K	2018	Still	Col_50#83	10	2	5	6	6	2	5	0	7		4	4	1	7	7	7
K	2018	Still	Col_50#83	11	2	4	5	5	4	4	2	4		5	3	5	6	5	5
K	2018	Still	Col_50#83	4	2	2	3	1	4	0	0	4		8	0	0	6	3	4
K	2018	Still	Col_50#83	12	2	4	6	5	1	2	0	4		3	3	2	3	4	5
K	2018	Still	Col_50#83	13	2	2	2	2	2	1	0			4	2	4	3	3	3

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**Table 13**  
(continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
K	2018	Still	Col_50#83	14	2	2	2	1	9	3	0	3					6	4	4
K	2018	Still	Col_50#83	15	2	2	5	1	2	3	1	2		9	1	1	4	2	3
Reference pinot blanc	2018	Still	Pinot Blanc	1	1	5	6	5	4	2	0	6		7	2	1	7	7	7
Reference pinot blanc	2018	Still	Pinot Blanc	2	1	4	8	2	8	3	0	6		5	5	2	6	5	6
Reference pinot blanc	2018	Still	Pinot Blanc	3	1	1	2	0	1	0	0	1		4	3	4	6	5	5
Reference pinot blanc	2018	Still	Pinot Blanc	4	1	4	3	1	1	0	0	7		8	0	2	3	5	5
Reference pinot blanc	2018	Still	Pinot Blanc	5	1	3	6	6	7	3	4	7		5	6	2	4	6	7
Reference pinot blanc	2018	Still	Pinot Blanc	6	1	4	4	5	3	7	3	5		6	8	2	4	6	7
Reference pinot blanc	2018	Still	Pinot Blanc	7	1	1	3	3	4	0	2	3		2	4	0	4	3	3
Reference pinot blanc	2018	Still	Pinot Blanc	8	1	3	7	7	8	5	7	7		7	5	8	5	7	7
Reference pinot blanc	2018	Still	Pinot Blanc	9	1	2	4	6	6	2	0	4		2	0	0	0	2	2
Reference pinot blanc	2018	Still	Pinot Blanc	10	1	4	6	2	6	3	1	7		7	1	1	7	8	7
Reference pinot blanc	2018	Still	Pinot Blanc	11	1	1	3	4	2	4	2	3		2	0	1	4	4	4

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference pinot blanc	2018	Still	Pinot Blanc	12	1	3		2	4	1	1	3		1	3	1	3	3	3
Reference pinot blanc	2018	Still	Pinot Blanc	13	1	3	4	4	2	5	4	3		3	0	4	3	3	3
Reference pinot blanc	2018	Still	Pinot Blanc	14	1	4	6	6	0	3	0	5		5	2	0	5	6	6
Reference pinot blanc	2018	Still	Pinot Blanc	15	1	4	6	1	4	0	0	5		3	1	1	5	4	5
Reference pinot blanc	2018	Still	Pinot Blanc	16	1	4	1	0	2	3	6	2		8	4	3	4	3	2
Reference pinot blanc	2018	Still	Pinot Blanc	17	1	3	6	7	8	1	3	7		7	4	1	7	7	7
Reference pinot blanc	2018	Still	Pinot Blanc	18	1	2	3	4	6	8	0	5		8	7	3	6	8	7
Reference pinot blanc	2018	Still	Pinot Blanc	1	2	4	6	5	0	5	5	5		3	3	0	5	5	5
Reference pinot blanc	2018	Still	Pinot Blanc	2	2	1	6	2	6	2	3	4		6	1	1	7	8	6
Reference pinot blanc	2018	Still	Pinot Blanc	3	2	1	3	0	0	2	0	3		2	0	4	1	2	2
Reference pinot blanc	2018	Still	Pinot Blanc	5	2	4	7	6	6	3	2	6		4	2	1	4	5	5
Reference pinot blanc	2018	Still	Pinot Blanc	6	2	3	6	2	0	0	6	2		6	0	2	6	5	3

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference pinot blanc	2018	Still	Pinot Blanc	7	2	2	3	2	3	0	1	2		2	1	2	0	2	1
Reference pinot blanc	2018	Still	Pinot Blanc	8	2	2	4	2	3	1	4	5		2	2	2	0	3	4
Reference pinot blanc	2018	Still	Pinot Blanc	9	2	6	4	1	4	0	0	4		5	4	0	6	5	5
Reference pinot blanc	2018	Still	Pinot Blanc	10	2	4	6	4	2	5	0	2		3	3	1	5	3	3
Reference pinot blanc	2018	Still	Pinot Blanc	11	2	4	5	6	4	4	4	5		5	4	5	4	4	4
Reference pinot blanc	2018	Still	Pinot Blanc	4	2	3	7	2	8	0	0	6		7	2	1	4	3	4
Reference pinot blanc	2018	Still	Pinot Blanc	12	2	3	3	3	3	0	0	4		3	4	2	2	4	
Reference pinot blanc	2018	Still	Pinot Blanc	13	2	2	3	2	2	0	0	3		5	4	3	3	3	3
Reference pinot blanc	2018	Still	Pinot Blanc	14	2	4	5	1	7	6	0	7		8	6	2	8	8	7
Reference pinot blanc	2018	Still	Pinot Blanc	15	2	4	3	1	1	2	4	2		7	3	3	3	4	3
Reference riesling	2018	Still	Riesling	1	1	4	5	4	1	3	1	5		5	0	2	5	5	5
Reference riesling	2018	Still	Riesling	2	1	6	9	1	7	5	0	8		6	4	2	6	6	
Reference riesling	2018	Still	Riesling	3	1	1	4	1	2	2	0	3		7	3	0	6	7	7

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Table 13 (continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference riesling	2018	Still	Riesling	4	1	6	8	1	3	5	1	8		7	0	1	9	8	7
Reference riesling	2018	Still	Riesling	5	1	5	7	5	5	2	3	5		3	6	4	6	6	6
Reference riesling	2018	Still	Riesling	6	1	2	4	5	5	6	7	6		8	6	2	4	4	5
Reference riesling	2018	Still	Riesling	7	1	3	2	5	3	1	3	4		2	3	1	2	2	3
Reference riesling	2018	Still	Riesling	8	1	3	6	5	5	4	6	6		5	4	6	3	5	6
Reference riesling	2018	Still	Riesling	9	1	4	8	6	6	7	1	7		6	1	2	8	8	8
Reference riesling	2018	Still	Riesling	10	1	6	6	0	4	4	1	6		7	1	1	6	7	7
Reference riesling	2018	Still	Riesling	11	1	3	5	6	3	2	5	6		7	1	3	4		4
Reference riesling	2018	Still	Riesling	12	1	3	2	2	2	1	1	3		2	2	1	4	3	2
Reference riesling	2018	Still	Riesling	13	1	3	4	2	2	5	2	3		7	1	3	4	3	
Reference riesling	2018	Still	Riesling	14	1	6	6	4	4	0	0	4		6	2	0	6	6	6
Reference riesling	2018	Still	Riesling	15	1	4	6	5	2	0	0	6		6	1	1	5	5	6
Reference riesling	2018	Still	Riesling	16	1	2	4	0	2	4	6	0		8	0	0	7	3	3
Reference riesling	2018	Still	Riesling	17	1	5	7	8	6	2	1	7		8	3	4	5	5	6
Reference riesling	2018	Still	Riesling	18	1	5	5	1	4	3	0	7		7	2	2	6	4	7
Reference riesling	2018	Still	Riesling	1	2	4	6	4	1	7	1	6		4	2	1	5	1	6
Reference riesling	2018	Still	Riesling	2	2	2	6	2	2	7	2	6		4	1	2	7	6	6

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**Table 13**  
(continued)

#code	Year	Still Spark	Variety	# Judge	# Repetition	Color intensity	Aroma intensity	Floral aroma	Fruit aroma	Mineral aroma	Vegetable aroma	Aroma quality	Sparkling intensity	Taste acidity	Taste sugar	Taste bitterness	Taste length	Taste quality	Senso quality
Reference riesling	2018	Still	Riesling	3	2	2	1	0	0	0	0	1		5	2	0	2	4	4
Reference riesling	2018	Still	Riesling	5	2	5	7	7	4	4	3	7		6	1	1	6	7	7
Reference riesling	2018	Still	Riesling	6	2	3	4	2	0	4	6	4		7	0	2	3	3	4
Reference riesling	2018	Still	Riesling	7	2	5	4	1	1	5	2	5		3	1	3	6	4	5
Reference riesling	2018	Still	Riesling	8	2	3	2	1	3	2	1	1		2	2	4	2	0	1
Reference riesling	2018	Still	Riesling	9	2	4	8	5	5	3	3	8		8	2	0	8	8	7
Reference riesling	2018	Still	Riesling	10	2	5	5	5	3	2	0	4		3	1	1	5	2	2
Reference riesling	2018	Still	Riesling	11	2	3	4	3	3	6	3	5		5	3	6	7	6	5
Reference riesling	2018	Still	Riesling	4	2	3	4	0	0	8	0	2		9	0	2	2	2	2
Reference riesling	2018	Still	Riesling	12	2	3	6		2	7		6		3	2	3	6	6	7
Reference riesling	2018	Still	Riesling	13	2	2	3	3	3	2	0	3		5	2	2	2	3	3
Reference riesling	2018	Still	Riesling	14	2	4		5	9	2	0	6		8	5	5	6	7	7
Reference riesling	2018	Still	Riesling	15	2	3	3	2	2	5	4	4		9	1	1	3	3	4

**Table 14**

Economical and social features (semi gross margin at system scale, economic result at farm scale, human capital, penibility, pesticides, security).

Year	Semi gross margin at system scale	Economic result at farm scale	Human capital	Penibility	Pesticides	Security
2015 184		-2653	0	5	0	7.9
2015 -5908.697882		-7241.415273	4.3	0	4.101049	9.4
2015 -8550		-11387	0	5	4	7.9
2015 -9000		-11000	0.14	5	0	7.9
2015						
2015 -2412		-3745	0	0	4.29	9.4
2015 1724		-1894	0	5	3.67	9
2015 6585		2813	1	5	1.33	9
2015						
2015						

With: - PB: gross product (in €·ha<sup>-1</sup>) = quantity harvested \* selling price

- AD: direct aid (in €·ha<sup>-1</sup>)

- CO: operating expenses (in €·ha<sup>-1</sup>) which takes into account the purchase of seeds (for cover crop of the plot), depreciation on the plantation, pesticide spraying, fertilizers, fuel and labor. This value (in €·ha<sup>-1</sup>) will then be transformed into an indicator with color code (black, red, orange and green) with a threshold of 1000, 2000 and 3000 €·ha<sup>-1</sup>.

Then taxes, tractors and tools depreciation or land are included in this semi-net margin to estimate the net profit per hectare. An identical economic indicator to the semi-net margin will be produced with a threshold of 0, 1000 and 2000 €·ha<sup>-1</sup>.

## 2.10. Sociological characterization

*Human capital* expresses social assessment by workers in the grapevine plot.

*Human capital* is the aggregation three sub-indicators of (i) penibility: harduousness at work, (ii) pesticide: pesticide risk use by winegrower, (iii) security: safety at work. The penibility is evaluated on the mean time spent in repetitive works, painful posture and mechanical vibration compare with reference from the French health system. For the pesticide risk use, EUROPEM data [19] is used to evaluate the exposure during pesticide preparation and pesticide spraying according to wear or not individual protection equipment. Finally, the security takes into account worker education and worker protection of mechanical equipment. The human capital assessment result is the aggregation of the three risks above with decision trees using fuzzy logic on a scale from 0 (unacceptable) to 4 (fully acceptable) [3]. More details on this indicator calculation are available in [17] (Table 14).

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## Conflict of interest

The authors declare that they have no known competing financial interests or personal relationships, which have, or could be perceived to have, influenced the work reported in this article.

## Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.dib.2020.105663](https://doi.org/10.1016/j.dib.2020.105663).

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